THE CUBAN HEALTH CARE SYSTEM
A STUDY IN THE EVALUATION OF HEALTH CARE SYSTEMS

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1969

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A Dissertation Submitted to the School of Medicine of

Yale University in Partial Fulfillment of the Requirements

For the Degree of Doctor of Medicine, June 1969

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I. INTRODUCTION

A health care system is the entire complex of personal relationships and organized arrangements through which health services are made available to a population. In an era that has seen great advances in medical science and technology, the challenge facing health workers around the world is to improve the organization of health care systems so that the services made possible by this progress become available to the people.

Organizing health services is an extremely complex task, involving planning, operating and evaluating a system. These are interrelated tasks, for each tends to modify the others. For example, things discovered in operating or evaluating a system may modify future plans or existing goals; in the reverse, goals shape operating methods and influence evaluation.

This paper proposes to contribute to health care system organization primarily through the aspect of evaluation; to that end, it has several objectives. The first is to provide information about a relatively unknown but highly novel health care system, that of the Republic of Cuba. The second is to critically evaluate this system, and in light of this evaluation, to see what may be useful or generalizable to other countries. The third is to explore the difficulties of health system evaluation: specifically, to critically study commonly held ideals and standards and to analyze them in light of the Cuban experience.

The raison d'etre of this study rests on the similarity of Cuban health problems with those of other countries, as well as the uniqueness of the Cuban situation. Cuba shares the problems of underdevelopment with many countries of Asia, Africa and Latin America (the Third World); she shares a government-provided health system with other Communist countries; she shares the tasks of achieving a more equitable distribution of existing resources and raising her population's health awareness with countries of every continent and social system.

Cuba is unique in several respects. She is in the tenth year of a revolution that has radically transformed every aspect of life in the country, including the health care system. The existing system thus has a built-in control for comparison, the old system. Cuba is also one of the first countries in the Third World, and the first in Latin America, to institute government-run health services for the whole population. The health problems of the Third World are so severe that anything offering the possibility of improvement must be carefully studied. Finally, through the study of another system, organized on principles and in a society different from one's own, one becomes aware of the cultural relativity of many of the characteristics formerly thought synonymous with human nature.

II. METHODOLOGY

The information for this study comes from several sources. The first is a personal trip made to Cuba for one month during the winter of 1968-1969, under the auspices of the Cuban Ministry of Public Health. Other sources include extensive readings in literature of the Cuban Ministry and the World Health Organization, as well as study of many international public health writings on health care system organization and evaluation.

The description of the health care system of Cuba comes from observations made on the trip, supplemented with readings published by the Ministry of Public Health. The trip was made with the express purpose of becoming informed about the public health system; it included extensive viewings of facilities, observations of services being performed, and discussions with health personnel, on every level and area of the island, except at medical research facilities. Visits were made to many rural clinics and hospitals, some deep in mountainous regions, as well as a variety of urban medical facilities. Services seen include field visits with nurses and sanitation aides, as well as many polyclinic and hospital procedures. Impressions and information were also gained in talks with hospital administrators, public health ministry officials, sanitation aides, field nurses, medical and nursing students, hospital workers, and a variety of patients and doctors in many different situations.

An extensive period of personal observation is invaluable in understanding a system, and gives life and deeper meaning to information from secondary sources. Yet, several limitations should be pointed out in this method.

Intrinsic to personal observation per se is the problem of subjectivity. I was prepared to like Cuba, and made an effort to view things sympathetically. Part of this simply means trying to understand things in Cuban terms, and to view what I saw in the context of the present Cuban society and culture. At times I tried to be rigorously critical, to force the Cubans to justify or explain things that I did not fully comprehend; I felt that in this way I would learn the most, and also obtain the most information to bring back and share with colleagues less generally sympathetic with Cuba than myself.

The specific nature of the trip also contributed to its limitations. One month was less time than ideal to gain both factual information and personal impressions; six months to a year would probably be better. We traveled as a group which varied between twelve and seventeen, and as such, certain opportunities for long, individual observations or discussions were missed. Also, I did not speak Spanish, and was therefore somewhat handicapped. This was not as severe as one might anticipate because of a number of reasons: five members of the group spoke fluent Spanish; several translators were available to us at all times; and many Cubans speak English, especially among medical personnel. Finally, my lack of experience must be considered, as a trav-

eler to different cultures and societies, as a member of the medical profession, and as a novice in the field of health care organization and evaluation.

The evaluation of the system will proceed from several vantage points: an examination of the results of the system in the past ten years, comparing health conditions in Cuba in 1967 with those of 1958; an analysis of the present system in light of its goals; a comparison of health conditions in Cuba with those of other Latin American countries; a comparison of the structure and function of the Cuban system with that of the Czechoslovakian system upon which it was modeled; and a comparison of the Cuban system with 'generally accepted' standards as proposed by experts in the field of health care organization, and also with standards emerging from the Student Health Organization critique of the U.S. health care system.

The diversity of the approach to evaluation reflects the lack of consensus on how to evaluate a health care system, and the specific shortcomings of any single approach. Comparing the results of one system with another on the basis of certain parameters will give an accurate picture of prevailing health conditions in the respective countries, but progress in health is as much a result of general economic and social development as it is of the specific functioning of the health system.

Using 'generally accepted' standards is helpful in evaluating a system, but several problems have to be considered. First, no single source exists from which to obtain such a set of standards, for the experts them-

selves do not always agree. One has to read through numerous sources and cull from them a set of criteria, taking the ones that seem to occur most frequently, that appear the most reasonable, and that, when added together, cover all aspects of health care.

The second limitation of the 'general standards' method, and also of the SHO critique, is that many of these criteria are culturally determined. They grow out of a specific cultural matrix, and are written by men and for people of a given society and social structure. In trying to understand the system of a different society, some of the criteria are inapplicable, and some of what one sees in that system appears to contradict assumptions upon which the 'generally accepted' standards are predicated. A section of this paper will attempt to expand on this with specific examples from the Cuban context.

III. DESCRIPTION OF THE HEALTH SYSTEM

1. Brief History of Modern Cuba[1]

Cuba is an island of 44,000 square miles located 90 miles south of the Florida Keys. In the 1950s she had about 6.5 million people, and more than half of her land was arable and suitable for a diversity of crops. A good part of the other half was fit for grazing. The only problem for agriculture was limited rainfall.

But during the first half of the twentieth century Cuba was no island paradise. Her economy was dominated by a single crop, sugar cane. Most of the good sugar and cattle land was concentrated in large holdings, called latifundias. In 1950, 114 farms, representing 0.1% of the number of landholdings, controlled 20.1% of the land; 8% of the farms controlled 71.1% of the land. At the other extreme, 39% of the farms were between one and 25 acres, and controlled 3.3% of the land. The great bulk of farmers were landless proletariat.

One of the great problems of sugar is that it takes up space of potential food crops. Cuba had to import 30% of her food stuffs in 1950. Another problem with sugar is that it is a seasonal crop. Twenty percent of the Cuban work force was employed in the sugar harvest, and these men had regular employment for only four months of each year.

Add this to 25% of the work force, or 700,000 men, who had no regular employment, and one begins to get a picture of the poverty and misery of pre-revolutionary Cuba.

The great mass of people in the urban sector were not much better off. They worked for low wages, and the great scandals of the 1950s centered on the embezzlement of the workers' retirement funds.

Housing was terrible; there were 200,000 bohios on the island, huts with roofs and walls of palm leaves and with earthen floors. Fifty-four percent of rural dwellings had no toilets or latrines, and 35% of all the housing in Cuba had no indoor running water.

Education in the rural areas was spotty to nonexistent, and 43% of the population was considered rural in 1950. Twenty-three percent of the adult population of the island was functionally illiterate.

Health care was as bad as anything else, but more on that subject later.

The other major industry of Cuba was tourism. Havana, the capital, was the nightspot of the Carribean. It had the best rum, gambling and whores that money could buy.

And whose money? Well, usually los norteamericanos. In fact, the U.S. dominated Cuban economy in this period. It was the third largest source for American foreign investment in Latin America, following only Venezuela and Brazil. In 1950 the U.S. controlled 90% of the telephone and electric power, 50% of the public service railways, 40% of raw sugar production, and 25% of bank deposits. It had investments in virtually every other sphere of the Cuban economy.

The Cubans first began to struggle for independence in 1868, when they fought unsuccessfully against the Spanish for ten years. They fought again in 1898, and with American help, won their independence.

Or so they thought. Although American aid had been offered simply to help the Cubans free themselves, the U.S. government took a different position after the war. In 1903, aided by its occupation forces, it imposed on the new Cuban Republic the terms of the Platt Amendment, which gave the U.S. government the right to intervene in Cuban affairs for

> "... the preservation of Cuban independence, the maintenance of government adequate for the protection of life, property, and individual liberty, and for discharging the obligations with respect to Cuba imposed by the Treaty of Paris ..."

These other obligations included the right to buy or lease land for the maintenance of coaling or naval stations on Cuban territory. The U.S. intervened three times in the next fifteen years, in 1906, 1912, and 1917.

Over the next 50 years Cuba had a succession of governments, some corrupt, some honest, all subject to American economic and political influence. In 1933 the U.S. abrogated the Platt Amendment, without however abandoning its base at Guantanamo. And in 1934, Fulgencio Batista, having seized control of the army the year before, took control of the government.

Batista's years were marked by repression, assassination, gangsterism, bribery and corruption. A presidential election was scheduled for June 1, 1952; ten days before that, a public opinion poll showed Batista running last, and he again took control of the armed forces and the government, cancelling the election.

A few weeks after this second coup d'etat, a young 25-year-old lawyer who had just received his degree two years before, walked into a courtroom in Santiago de Cuba and filed a brief accusing Batista of violating the constitution. His name was Fidel Castro.

The brief was dismissed, and Fidel set about organizing an armed insurrection. On July 26, 1953, he led an attack of 200 men against the Moncada army barracks in Santiago, second-largest fortress in Cuba. His plan was to surprise and overwhelm the 1,000-man garrison, capture the large quantities of modern weapons stored there, and then issue an appeal over the radio for the people of Cuba to rise up against the forces of the dictator. The attack failed, and the men who weren't killed at the time escaped to the mountains, to be hunted down and murdered, or if they were fortunate, captured.

Fidel was captured and brought to trial. After being held incommunicado for 87 days, he was permitted to speak from a hospital lobby to defend himself. He proceeded to give a five-hour speech, speaking extemporaneously, explaining why he had led the attack. The second part of the speech is a journey through modern history justifying the right of revolution in the face of tyranny. The first part is perhaps the best existing document describing what conditions were like in pre-revolutionary Cuba. The speech ended on the defiant note of: "History will absolve me!"

Fidel was sentenced to 15 years' imprisonment on the Isle of Pines. But the tides of public opinion began to turn against Batista, and in 1955, as a public relations gesture, he pardoned Fidel and the other members of the July 26th movement, as the men who attacked Moncada had become known.

The rest is already a modern legend. In July 1955 Fidel went to Mexico where he began to organize an invasion of Cuba. It is here that Che Guevara, trained as a physician in Argentina, joined him. Eighty-four men set out in late November 1956 on a leaky 54-foot yacht named "the Granma". They landed five days later, missed a rendezvous, got lost, were ambushed, and were almost annihilated as a fighting force. A month later twelve survivors reached the Sierra Maestra Mountains. Over the next two years they got more men and arms, became an effective fighting force, and won the allegiance of the campesinos (peasants) of the region. Then the rebel columns came down from the mountains, beat Batista's armies in battles where the rebels were outnumbered five to one, and on January 2, 1959, assumed control of the government.

It was a radical social revolution right from the start. Many people were deceived by the composition of the first provisional government, in which Fidel was not a member. It was an amalgam of forces that had opposed Batista, including former magistrates, lawyers, political figures, engineers, and newspaper publishers. But the 26th of July movement continued to hold power through the rebel army and popular support, especially among the peasantry. And the Agrarian Reform Law of May 17, 1959, unveiled the revolution.

The law limited landholding to 1,000 acres, expropriating all farms larger than that; owners were to be compensated over a twenty-year period. Share croppers and tenant farmers would be given title to the land they worked. The rest would not be distributed, as had been the precedent

in all other popular revolutions of the twentieth century, but would be put into large, collectively-operated state farms.

The facade crumbled and the moderates began to resign from the government.

The second stage of polarization took place a year later, in June 1960. Cuba had concluded an agreement whereby she was to begin receiving Soviet oil shipments; the refineries, controlled by Standard Oil, Texaco and Shell, refused to process it. The Cubans moved in to man the refineries, and the companies cut off the shipment of Venezuelan oil to Cuba. The Cubans in turn began to buy all their oil from the Russians.

The second round began the next month when the U.S., under pressure from the oil lobby, cut off the Cuban sugar quota, refusing to import any more Cuban sugar. The Soviets stepped in and agreed to buy the American share. Cuba then nationalized electric power, telephones, sugar mills, and oil refineries. She promised to compensate the former owners from the proceeds of all the sugar above 3 million tons that she sold to the U.S. in any future years.

In September, Cuba nationalized rubber factories, grocery chains and banks belonging to American investors. The government also for the first time took control of some big Cuban-owned companies, starting with the cigar and cigarette industries. The U.S. retaliated by placing an embargo on all goods going to Cuba except medicines and certain foodstuffs. The Cubans nationalized the rest of the U.S. companies, and most of the other privately-owned large businesses on the island.

This economic warfare had a profound impact on the Cuban society. For one, it transferred most of her trade to the socialist bloc. For another, it transformed Cuba into a socialist state. For a third, it turned the entire upper class and a large part of the middle class against the new government. Support from then on was to come almost entirely from the peasants and the workers.

From this point on, the Revolution had to prepare to defend itself. Arrayed against it were the U.S. and a varied assortment of Cuban nationals, residing both inside and outside the country. The government created the popular militia to help defend against the external threat, and the Committees for the Defense of the Revolution (CDRs), which are mass organizations organized on every block on the island. The CDR's original task was to patrol the streets at night to guard against sabotage and counterrevolutionary activity. They have since become involved in other functions, especially in the field of health.

It is in this setting that the government began to organize its health services.

2. The Old Health Care System

It should be emphasized at the outset that Cuba's health conditions were not bad by Third World standards in the period prior to the Revolution. The country had many well-qualified doctors, some trained in the U.S. The morbidity and mortality rates were among the lowest in Latin America, and the doctor-to-population ratio amongst the highest. Yellow

fever had been largely eliminated, and malaria was fairly well controlled. Immunizations to typhoid, diptheria and smallpox were free and compulsory in the schools. While tuberculosis and polio were major problems, the vaccines against them (BCG and Salk) were not well-developed in the 1950s.

Looking at Cuba herself, however, one could see vast gaps between existing and potential health conditions.[2] Epidemics of gastroenteritis were the major feature of morbidity on the island for all age groups, and accounted for a large number of the deaths in children less than one year of age. The common complication, uncontrollable diarrhea resulting in severe dehydration, took more than seven thousand lives in 1958. Malaria was endemic, and during the 1950s between seven and ten thousand cases were reported yearly. Tuberculosis was uncontrolled, and was a grave medical and social problem among the urban poor; there were at least a thousand deaths from it each year. Other prevalent infectious diseases included typhoid fever, polio, tetanus and diptheria. These will be explored in greater quantitative detail in the section comparing the old and new health systems.

Contributing to the spread of these infectious diseases were all the problems generally found in underdeveloped countries, including widespread poor housing, deficient sanitation, poverty, poor nutrition, unclear water, poor food storage, and an abundance of disease vectors. However, while these economic and social conditions underlay the poor health conditions, the situation was exacerbated by deficiencies in the health care system;" specifically, the poor organization of the country's health care services.

The chief characteristics of the pre-revolutionary health care system were that it was predominantly private with limited and low-quality state services, placed most emphasis on curative medicine, and showed glaring imbalances in distribution of personnel, facilities and services between urban and rural areas.

Most doctors engaged in solo private practice, with an overwhelming emphasis on the curative aspects of medical care. Some also owned hospitals, which were limited in number, provided good care, and were very expensive. In the cities there was an abundance of physicians, and competition was fierce for paying patients.

There was also a number of cooperative medical institutions which were owned by doctors. A common form was the mutual health plan, a group subscription plan in which a large number of people paid a fixed yearly sum and then additional fees for certain services. These offered lucrative positions for doctors, and they competed here also, often paying large sums for membership.

Perhaps the most progressive form of health service in this period was the social center hospital, in which members of a specific interest or ethnic group would pay fixed sums in return for guaranteed hospital care; the hospital doctors worked for fixed salaries, and were often highly qualified physicians.

These forms of medical care, while often of good quality, were limited in several respects. One was that they were essentially curative

in nature, with little emphasis on preventive medicine; people paid for care when they were sick, and that's what they received.

A second limitation was that they were generally restricted to people who could pay. The government provided some services for poor people, which included hospitals, dental and maternity clinics, and first-aid stations. However, these were irregular in quality because of low budgets, low prestige and morale of the staffing physicians, and inefficient and corrupt administrative practices.

Public health functions in general were shared by the government with private, semi-private, autonomous, and semi-official agencies, which made for duplication, gaps in service, and general lack of coordination. The government organized its services in the Ministry of Health and Social Assistance, and had a limited concept of public health. It never attempted to plan for provision or organization of the country's health services; rather, it confined its activities to running a few facilities for the urban poor, and to a few preventive tasks, such as vaccination campaigns around the cities in response to warnings of epidemics. Vaccinations, x-rays and physical exams were not generally available outside the cities.

The government's public health activities were further limited in practice by several factors: the budget was always small (always less than 7% of the national budget) and corruption and misappropriation further reduced available funds; inefficient administration, characterized by an

over-centralized and rigid bureaucracy, hampered both local initiative and regional coordination; there was poor reporting of diseases and causes of death despite laws to the contrary, producing a dearth of information from which to plan public health measures. In general, there was little attempt to stimulate public health awareness in the population, and the people did not participate in public health activity.

The most glaring inequity of the old system, however, was the uneven distribution of health personnel and facilities. In 1958 Cuba had 6,300 doctors for a population of 6.5 million people, giving a doctor-to-patient ratio of roughly 1:1,000. The capital city of Havana, largest in the country, had over 65% of these doctors for 1.3 million people, or a doctor-to-patient ratio of about 1:310. This left the rest of the country with 2,100 doctors for 5.2 million people, or one doctor for every 2,475 people.[3]

Furthermore, the doctors would not leave the cities, either to set up practice or to make calls. They competed for urban places, and those unsuccessful in this competition would emigrate; in the late 1950s, over half of the recent graduates were leaving the country. People in rural areas who became ill had to travel to the cities for medical attention, which was extremely difficult in a country with a poorly-developed public transport system. There are graveyards full of people where the sick used to wait, signaling for a passing ship to take them to the nearest city and to the nearest medical facility.

To complement the lack of doctors in rural areas was the lack of hospital beds. In all of rural Oriente there was one ten-bed hospital before the Revolution; this is an area where the new government has constructed 29 hospitals with 1,100 beds. In the country as a whole in 1959, there were 25,745 beds in 54 hospitals, giving a ratio of 3.86 beds per thousand people; these hospitals were to be found almost exclusively in urban areas.[4]

The health care system suffered also in other respects. Education of doctors took place at the University of Havana medical school, which had no full-time staff. The faculty was made up of part-time, private physicians; the teaching, while often good, suffered from lack of coordination between relatively autonomous departments. Admissions policy was discriminatory in that it was biased against women and virtually closed to black applicants. Costs were such that only the sons of the middle and upper classes could afford medical education.

Finally, there was little reverence for the scientific tradition of medicine. Achievements of the international scientific community were not generally available, and little interest was shown in provincial, national or international conferences. There was also little coordination with world health agencies in terms of participation in international programs or solicitation of technical help or training opportunities.

It was in the face of this widespread morbidity and high mortality from infectious disease, and with the legacy of a poorly-distributed, profit-oriented medical establishment, that the new revolutionary government set out to reorganize the country's health care system when it came to power in the beginning of 1959.

3. Evolution of the New System

The health care system that one sees today in Cuba did not exist even in its planners' minds back in 1958. Rather, it is the result of a continually evolving conception of health and health care, modified by and integrated with the revolutionary process.

The immediate steps taken by the revolutionary government in the period from 1958 to 1960 reveal much about its early thinking on health care. The two main emphases in 1959 were to establish close relations with the international health community and to begin the fight against the infectious disease problem in Cuba.

With regard to international cooperation, Cuba in 1959 joined the world-wide malaria control campaign. She began to work with The World Health Organization (WHO) and the Pan American Health Organization (PAHO), and asked for technical advisors and for fellowships to further train her doctors. She also began to view herself as the vanguard of social development in Latin America, as a model from which the other nations should learn in their efforts to solve their problems.

With regard to the infectious disease problem, several immediate measures were taken. The malaria control campaign was stepped up by allocating the vehicles needed. The budget to wipe out Aedes aegypti, the yellow fever vector, was increased sevenfold (from one to seven hundred thousand dollars). And most importantly, the country began to mobilize to fight against tuberculosis.

The fight against tuberculosis was waged on many fronts. Medicines and materials were immediately distributed to clinics and dispensaries around the country. A radio, press and general publicity campaign was initiated to educate the public with regard to symptoms, dangers, possibility of treatment, and to obtain maximum cooperation in the plan to vaccinate children with BCG and to x-ray adults as a screening procedure. In an 18-month period, the number of vaccinated children went from 10,000 to 217,000; 295,972 adults were screened, with 2,558 active cases detected (the rate of detection was 0.9% in the cities and 0.4% in the rural areas). Many mobile and stationary units were set up around the country, and the number of hospital beds was increased from 2,196 to 3,219.[5] Private initiative was also tapped, and local anti-tb leagues were formed in many communities to contribute financial help to patients and their families. Future plans for the tb campaign involved more x-rays and vaccinations; continued health education for the general public, for patients and their families, and for professional and technical groups; building of more outpatient and inpatient treatment centers; and initiating laws to protect the patient and his family.

Several things can be seen in this early health activity. The government mobilized very quickly to meet an urgent public problem. The reasons were its desire to improve conditions as quickly as possible so as to alleviate suffering and to gain support for itself, as well as to mobilize the people and various professional sectors to participate in the work of the Revolution. The problem was approached in a multi-faceted way,

through direct government activity, through the private sector, through existing professional groups, and through an attempt to mobilize the public. Finally, there was a balanced effort regarding treatment of existing illness and prevention of new disease.

In 1960 a definitive health care system began to take shape. It was seen as primarily a state service based on scientific principles for organization and practice, with the goal of making good health care accessible to the whole population. The system was to be organized on the following principles:[6]

1) integration of preventive and curative medicine;

2) centralization of policy-making and general supervision in the Ministry, with decentralization of executive direction as far as possible;

3) emphasis on the needs of rural areas, with the intent of expanding coverage to the whole country;

4) popular participation in the implementation of public health programs;

5) planning of health services as part of national social and economic planning;

6) increased attention to research, with intimate coordination with medical faculties and institutes;

7) collective work on all levels;

8) concentration of all health activities into a single state organization, the Ministry for Public Health (MINSAP);

9) an emphasis on maternal and child health;

10) opening medical training to people of all races, sexes, and economic backgrounds.

Private practice was still permitted even though the government began to recruit physicians into the state service; any doctor graduating medical school before 1965 can still go into private practice. But from this time on, the health of the people was clearly seen as a responsibility of the state; health activities were to be free and available to all the people.

In 1960 a law was passed making one year of rural service compulsory after medical school graduation; in 1964 this was increased to two years.

The years 1960 and 1961 also saw a mass emigration of doctors from Cuba; 1,360, or 21.5% of the total, left in those two years.[7] (Since then, 200 physicians continue to leave each year.) This migration caused a severe disruption of existing health services, and posed a great problem to MINSAP in its efforts to expand services. Temporary expedients were employed, such as shortening the length of medical education from seven to five years, using advanced students to teach less advanced ones (85% of the medical faculty resigned in 1961 after government intervention in the medical school program), and employing quickly-trained rural health workers to man dispensaries in mountainous regions. Things have since much improved: medical education was lengthened back to six years; two new medical schools have been established and all three have sufficient faculty (although advanced students still teach less advanced ones); the rural dispensaries have been replaced by rural hospitals staffed by physicians.

In health as in other fields, theory has emerged from the Cuban experience, and it was not until 1964 that the current conceptions of health were fully delineated. The definition of health is based on that of the World Health Organization, but in line with their view of man fulfilling himself as a member of society, the Cubans elaborate it in more dynamic terms:

> "Health is not only a state of complete physical, mental and social welfare, but is a more dynamic concept, an expression of the equilibrium resulting from the interaction of man and his possibilities of response to the varying requirements of his environment." [8]

All aspects of the social order either serve to promote or to detract from the health of the people:

> "Phenomena that condition health and disease are basically biological and social in character, and express the relation of man with his environment, the character of the environment, the cultural development and economic structure of the society. The factors that condition the state of health or disease and their distribution in each society are many; those factors are of biological, economic, political, and cultural orders." [9]

The implication is: Look at the health of the people, and you learn of the nature of their society.

As one might expect from the forementioned definition of health and the Cuban understanding of what conditions health in a society, the Revolution itself is seen as the most important public health measure in Cuban history. But for administrative purposes, the sphere of public health is further delimited, and defined as follows:

> "Public health comprises the group of activities and measures and institutions at the service of the society with the aim of protecting the health of the population, curing diseases, preventing them, helping people to develop good physical and mental capacities, prolonging life, and developing a healthy new generation." [10]

One might now begin to wonder about the form of the health system actually created to fulfill these rather broad and sweeping goals.

4. The Present Health System

The Cuban Ministry of Public Health oversees a large health care system consisting of a multitude of facilities, services and personnel, all of which are administratively divided on a geographical basis.

The two principles that may be said to govern the organization of the facilities and services are regionalization and integration. Regionalization implies separately planned functions for different facilities, with a hierarchical distribution of facilities in a pyramidal structure, running from the primary care at the base to highly specialized services at the apex. Integration means that every medical care facility concerns itself with both preventive and curative tasks.

Cuba is divided into seven provincial health regions (she actually has six provinces, but for health administrative purposes, Oriente is divided into two, North and South Oriente). Each of these provinces is divided into health regions, with a total of thirty-eight on the island. The regions are in turn divided into health areas, which are the basic units of health care service; the areas are subdivided into health sectors.

Facilities and Services

A health area is the entire area served by a single primary care facility, i.e., an integral polyclinic or a rural hospital. The polyclinics are strictly outpatient facilities; the rural hospitals are polyclinics with inpatient beds, and are found only in inaccessible rural areas.

A polyclinic is designed to serve an area with about 15,000-25,000 people and usually has three doctors, trained in general medicine, pediatrics, and obstetrics and gynecology. It is also staffed by dentists, nurses, nursing aids, social workers, and laboratory and x-ray technicians. In addition, it has field nurses and sanitation workers who work out in the community served by the polyclinic.

The polyclinic performs many functions. On the curative side, it provides for diagnosis and treatment of most ambulatory illnesses, as well as for outpatient followup of diseases for which people were hospitalized. It is coordinated with a regional hospital, to which it sends people requiring hospitalization or complicated diagnostic workup, and from which it receives regular visits by consultants in specialized fields.

The polyclinics' preventive tasks are extremely varied. The area it serves is broken down into sectors, each with about 5,000 people; a sector is defined as "the smallest territorial unit over which health care can be exercised in an integral manner". Each sector is assigned a field nurse and a sanitation worker, who spend most of their time out in the community. Every area is mapped out by blocks, and the polyclinic gathers data concerning the number of people in different age groups, the types of buildings people live in, the number of factories and schools, the prevalence and incidence of infectious diseases, the causes of mortality in the sector, and identification of any small area in which the infectious disease rate seems unduly high.

The field nurse makes regular home visits, usually about eight per day. Every pregnant woman receives one visit per month from the beginning of pregnancy to the ninth month; during the last month she is visited once per week. In addition all pregnant women are invited to attend films and talks at the polyclinic concerning birth, and to engage in exercises. All childbirth is without anesthesia, or by what the Cubans call "psychoprophylaxis". The field nurse also regularly visits chronically ill people, as well as the schools and factories in her sector. She is also present at the polyclinic on the days that people from her sector are scheduled to come.

The sanitation worker spends his initial time becoming familiar with his area, with special reference to problems of waste removal, water supply, food storage, sewage disposal, and general cleanliness of the area. In the rural areas the problems are much greater, and he may organize classes in a community to teach the people basic elements of hygiene.

The health sectors were the last addition to the present health system; the Cubans view this as a major step in transforming potentially static treatment-oriented services into dynamic foci for the prevention of disease and for the health education of the population. The sick individual coming for treatment is no longer the sole object of health care; it has now expanded to the individual in the context of his family, his job, his school, and his community.

The social worker functions both within and outside the polyclinic; his tasks involve mostly problems of placement. Housing is in short supply, and sometimes a family has difficulty finding a suitable dwelling. In the countryside, the social workers determine the order of priority people to receive newly-built houses, basing their judgments on the need of the family in light of the condition of the old house. Other placement problems involve old people, and families with children which contain someone with tb. The social worker will make home visits, and then bring the difficult problems up at a local power meeting, at which representatives of all the community organizations are present.

The rural hospitals are designed to function in the same manner as the polyclinics; the inpatient beds, usually between ten and fifty, are for medical, pediatric, minor surgical, and obstetrical cases. However, its location requires a different emphasis, because a rural hospital may serve twenty thousand people spread over hundreds of square miles of mountainous area.

The rural hospitals are in areas where no previous medical facilities existed. The primary tasks, therefore, were to gain the confidence of the people and educate them to available preventive and clinical practice. Much stress was placed on changing the practice of having babies at home, and in rural areas of Oriente, 80% of the births are now institutional where none were before. Use was made of a maternity card, whereby women were given free maternity clothes if they had regular prenatal checks and delivered in the hospital. It was found that after the first birth, women usually came back without coaxing. In general,

women come in 15 days before they are due to deliver, because of the difficulty in reaching the hospital over the rough terrain.

Health work in general is more difficult in rural areas. Mention has been made of the sanitation workers who often went into areas with no sanitation services and where people lacked even rudimentary health awareness. Mobile units were employed for tb screening, and jeeps for malaria control. Also, rural health workers were trained; these were usually young people from a remote community who were given a two-month course at the rural hospital and then sent back to their homes to urge people to follow sanitation measures, to organize classes, to encourage people to visit the rural hospital if they were ill, and to inform the people on the days nurses or doctors might be visiting their area.

The role of a doctor in the rural hospital is also more difficult. They are for the most part recent graduates, who are 'specialists' by virtue of having completed a year of internship in pediatrics, ob-gyn, or general medicine. It is their practice to refer difficult cases to the regional hospital. In addition, while they have laboratory and x-ray facilities available, they generally have no bacteriology facility and patients requiring cultures are also sent to the regional hospital.

Other Local Level Activities

Several other services are offered by the primary care units. One is free dental care up to the age of fifteen, with an emphasis on regular exams and preventive care. Another is complete examinations and vaccinations for all children upon starting school. A third is yearly checkups

for all workers, especially those working in nurseries, food-handling capacities, or with children. This is done by means of a health card, which is filled out when the examination occurs, and which is supposed to be routinely checked at the place of work.

The people participate in public health activities through their mass organizations. The Committees for Defense of the Revolution (CDRs) each have a health worker who is responsible for the vaccination campaigns in his block (or rural equivalent). A date will be set each year for polio vaccinations; for some time before that, materials will be distributed, people will be informed, forms will be readied; on the given date, the children are assembled and can be vaccinated in a matter of hours. In 1962, 250,000 children were vaccinated against polio in ten days; the process now takes only one day each year.

The Federation of Cuban Women also plays a health role; many of its members are trained in nutrition and dietetics, and work in schools, factories, and agricultural work centers to supervise the feeding activities. They have also initiated an intensive campaign to encourage Cuban women aged 15-49 to have pap smears every six months; at present there are 255 primary care facilities administering them and eleven laboratories for analysis.

Most areas also have local health committees, of which the local polyclinic or hospital director is a member; the other members are the local authorities and members of community organizations. They keep informed of all health matters, watch the progress being made, help

solve difficult problems, and plan participation of local groups or people. The local Party also takes an independent interest in health conditions and activities.

There are thirty-seven regional hospitals in Cuba, each serving an average of 200,000 people. These are the referral centers for the integral polyclinics and rural hospitals. Ideally they are to be small medical complexes with a general hospital of 200 to 400 beds, plus a pediatric hospital and a maternity hospital. Most regions, however, have a general hospital and some other complementary units. The general hospital has services for internal medicine, general surgury, anesthesia, orthopedics, cardiology, urology, opthalmology, ENT, dermatology, and psychiatry; it also has pediatric or ob-gyn services if separate hospitals don't yet exist. The complementary units include outpatient clinics, old age homes, dental clinics, blood banks, and regional hygiene and epidemiology services and labs.

Above the regional level is the provincial hospital, which represents a complex with almost all medical specialties and subspecialties. All seven provincial areas have general hospitals with 350 to 800 beds. Six have pediatric hospitals with 250 to 500 beds, and six have maternity hospitals with 250 to 400 beds. Regional hospitals refer patients here for highly complicated problems, for vascular surgury, and for specialized procedures of diagnostic or therapeutic x-ray service (such as laminograms, cardiac catheterizations and angiography, and cesium and cobalt x-ray therapy).

At the apex of the pyramid are the national facilities; they are organized this way either because of inherited locations or because of the complexity of the equipment and specialization of personnel involved. The national psychiatric hospital, with 4,500 beds, is an example of the former; the specialty institutes, which are engaged in research in clinical and basic sciences are examples of the latter. There also exist a National Institute of Hygiene and Epidemiology and a National Institute of Microbiology, with laboratories in all provinces and regions.

All hospitals (except rural hospitals) have general staff meetings for scientific and case presentations, a committee to evaluate scientific activity, autopsy conferences, and departmental meetings for adminstrative work.

Administration

The administrative structure of MINSAP is organized along both geographic and functional lines. The Minister of Public Health is a member of the Central Committee of the Communist Party. He is advised by two councils: the Scientific Council, made up of eminent scientists, whose functions are to show where new activities or changes have been made possible by recent scientific or technical advances, to coordinate MINSAP activities with the medical faculties and the institutes, and to offer general advice; and the Executive Council, composed of five vice-ministers and various technical advisors. The vice-ministers are responsible for five divisions: medical care services (including hospitals), medical and allied education, epidemiology and public health (including hygiene and environmental sanitation), medical supplies, and finance and

planning (including statistical services). The function of the Executive Committee is to assist in the formulation, coordination, and evaluation of programs.

Each province has a director and five sub-directors, organized along the same lines as the national ministry. Each region also has a director, who oversees the functioning of the regional hospital and the various primary care facilities of the region. Every MINSAP administrator, as well as hospital and polyclinic directors (not of rural hospitals) will have a degree of public health as well as a medical degree.

MINSAP is organized on the principle of centralized planning with operational decentralization. General goals and norms are set at the national level; specific activities, approaches, and budget planning are initiated on the local level. It is held that the people on the regional and local levels will have more knowledge of local conditions and needs and be better able to apply ministry policy. Furthermore, they are best able to coordinate activities with other local organizations and administrations of the area.

Education and Training

The medical schools now have a six-year program; students enter after twelve years of schooling which includes six years primary school, three years secondary school, and three years pre-university. It is like entering any other department at the University of Havana, rather than on a graduate level as in the U.S.

Education is state-supported, and books are free. There are free room and board for single students and supplementary allowances for married students. The first two years are devoted to the basic sciences; however, each first-year student is assigned to a family in the community, usually one that is not fully utilizing the available health services. The intent of this experience is to make the student more aware of the social, emotional and physical factors that condition health and illness, and to encourage him to see his future patients as members of families, communities, and so on, rather than as sick individuals abstracted from all social contexts.

Part of the second year is spent in the hospital, learning basic procedures. The third, fourth, and fifth years are spent in hospitals, and the sixth year is the internship.

The relationships that exist among students, and between students and faculty, are different than one generally finds in the U.S. Most students take responsibility for tutoring those in the classes below them. This is in part a vestige from the early days of the Revolution, when there was a severe shortage of faculty; but also, students tend to think of themselves as working for a common purpose, and try to function as a collective in which they help each other as much as possible.

The faculty takes responsibility for the political as well as the medical education of students, and time is spent discussing current political issues. The students also contribute 'to the development of their classes' by engaging with their teachers in critical evaluation of

course material and teaching methods. If a teacher is unresponsive to student criticism, then the matter is brought up in the Young Communist League, to which many of the students belong. They in turn relate the matter to department heads, and the matter is further explored.

The student-teacher relationship is qualified by other factors. One is that they share a common goal, producing good doctors for the Cuban people, and it is considered easier to initiate discussions because of this. Secondly, students and teachers interact in other settings: they go out to do agricultural work together for several weeks each year, and they also serve in the militia together.

Many medical students in Cuba have developed a high degree of political consciousness. Health workers and students in general have a higher proportion of membership in the Party and the Young Communist League than any other professional group. The students go for several weeks or months a year to do agricultural work or to provide first aid to agricultural workers; in addition, they all serve in the militia. (Army doctors are not drafted; rather, a certain proportion of students join the army at some point in their training, and go on to become career army doctors.) The more politically-conscious medical students seem themselves not as joining the professional class, but rather as becoming technicians, men with skills which they will use to serve the people. They share with many other young people in Cuba a wide interest and understanding of political issues, a sense of sympathy and solidarity with the

struggle against imperialism being waged by peoples of the Third World, and a veneration of Che Guevera and the guerilla movement.

Students go on to take either straight or rotating internships. The straight internships are offered in a variety of fields, including obstetrics and orthopedics, as well as the ones found in the U.S. They then go into the rural service for two years, either to a rural hospital or to a regional hospital in one of the rural areas.

There was one medical school before the Revolution, that of the University of Havana. Since then two more have been founded, and students are now graduating from the University of Santiago and the University of Las Villas. Post-graduate programs are carried on in all the provincial hospitals, and advanced medical students will also soon be working at these centers. Professors from the medical schools and the national institutes spend three months each year at one of the provincial hospitals. Teaching is also carried on at some of the regional hospitals, especially in Havana.

After completing the rural service, most doctors now go on into specialty training for two or three years, either in a clinical specialty or in a basic science. Many go on to engage in research, teaching, or public health specialization. A number also go on to engage in service or study abroad. Cuba now has doctors serving, at the expense of the Cuban government, in Algeria, Mali, and the Congo. She has doctors studying in thirteen foreign countries: four in the Western h emisphere -- Chile, Colombia, Mexico, Canada; four in Western Europe -- England,

Spain, France, Italy; and in five socialist countries -- U.S.S.R., Hungary, Czechoslovakia, Bulgaria, and Roumania.

The Revolution has not focused exclusively on medical education. Many schools now exist for the training of dentists, nurses, specialty nurses in obstetrics and pediatrics, nursing aides, lab and x-ray technicians, and sanitation workers. The number of nursing schools has increased, from six to thirteen, and the number of schools for nurses' aides from none to 58. Furthermore, in line with the general policy of the revolutionary government, every center of work is becoming a center of education. People are encouraged to study at night, to move from general auxiliary to nursing aide, and then to graduate nurse; those qualified can go on to receive medical education. Whenever it is determined that a worker would profit from full-time education, he is permitted to go on to school and continues to receive the full salary that he earned while working.

Aside from this built-in mobility, other factors exist which tend to break down barriers between different types of health workers. In hospitals, as in other Cuban institutions, there are four parallel lines of organization. There is the administration, organized under MINSAP. There is the Party, made up of hospital workers nominated by their fellows and then chosen by the regional Party apparatus. There is the Young Communist League, organized like the Party for people under 27. And there is the union, made up of all the doctors, nurses, and workers in the hospital. The administration and Party discuss plans and issues with the hospital workers; the role of the union is to cooperate in fulfilling the

tasks of the Revolution, to guarantee safe working conditions and job security, to vote on governmental proposals that affect workers, such as pensions, and to stimulate worker education. The Party deals with political problems of the institutions, and organizes study circles and discussions.

This health system, built in ten years and grappling with the problems of many more, is a major work of the Revolution, one that the Cubans point to with pride. But what has it accomplished? How does it compare with the health systems of other countries? How does it look in light of modern standards of health care organization? It is upon questions such as these that we must base our final judgment of this Cuban health care system.

IV. EVALUATION IN TERMS OF THE CUBAN EXPERIENCE

1. Comparisons with the Old Health System

The achievements of the Revolution in the field of health care can be seen in many forms; they are reflected in the new facilities and services, in the variety and number of health workers being trained, and in the declining morbidity and mortality from infectious disease. At the same time, the Revolution itself has produced new public health problems.

In 1958 Cuba had 25,000 hospital beds in 54 hospitals, giving her 3.86 beds per thousand people. In 1968 she had 47,000 beds in 180 hospitals, or 5.9 beds per thousand people. In North Oriente, one of the most rural areas, there were 500 hospital beds before the Revolution; there are now 3,500. With regard to primary care facilities, the government has built 260 polyclinics and 47 rural hospitals. Overall, the budget of the Ministry has increased from 25 million pesos in 1958 to 220 million in 1968.[11]

Cuba had 6,300 doctors before the Revolution and was producing 300 a year. In the years 1960-1961, more than 21% (1,360 doctors) left the country. The Cubans are now training 700 to 800 doctors a year, but about 200 a year still leave the country. In 1968 there were 7,000 doctors; in 1970 there will be more than 8,000. The doctor-to-patient ratios will be 1:1,100 in 1969; 1:1,000 in 1971; 1:800 in 1975; and 1:650 in 1980.[12]

Furthermore, doctors are not the only type of health worker that is increasing in Cuba; the gains in other fields are even more impressive.

In the past ten years Cuba has trained 3,290 doctors; she has also trained 506 dentists, 2,566 nurses, 6,800 nursing aides, 109 pediatric nurses, 104 obstetrical nurses, 1,200 sanitary workers, 1,700 laboratory technicians, 690 x-ray technicians, and 790 pharmacy technicians. This is a total of 17,549 health workers.[13]

With regard to services, figures for the pre-Revolutionary era are not available. In 1963 there were 14 million dental and medical outpatient consultations. The estimated figure for 1968 is between 30 and 32 million, giving an average of close to four consultations a year for each person in Cuba.

It was estimated that in 1958 50% of births took place in hospitals; in 1966 it was up to 80%, and in 1968 it was estimated to be 90%.

The infectious disease pattern has changed markedly in the past ten years.[14] It should be noted that the figures for 1958 are considered to be only rough estimates because of generally poor record-keeping and reporting of disease in areas covered by the old public health system, and complete lack of information for the more rural areas.

In 1958 Cuba had between 7,000 and 10,000 cases of malaria, more than 7,000 deaths from acute diarrhea, and between 300 and 400 cases of polio with a 25% fatality rate. In 1962 there were 3,500 cases of malaria, and 4,100 deaths from acute diarrhea. In 1967 there were 1,638 deaths from acute diarrhea. There have been no reported cases of polio in Cuba since 1965, and no malaria since June 1967. It is also

important to consider that it is children, often those under one year of age, who most frequently succumb to the complications of diarrhea.

There are no accurate pre-revolutionary statistics for tuberculosis, typhoid fever, or diptheria. In 1964, 1,402 people died of tb; in 1967 this had decreased to 940. In 1964 there were 1,164 cases of typhoid fever; in 1967 only 191. In 1962 there were 1,469 cases of diptheria; in 1967 only 435.

The typhoid problem is not completely solved, however. There was an epidemic in 1964 at Sagua la Grande in which 776 cases were reported. In 1967 the flooding and contamination of streams caused a rural epidemic in which eleven people died. In 1968 there was an epidemic in the Bayamo region, raising the yearly total to 930 cases.

Infectious hepatitis has shown a regular yearly increase in Cuba for the past six years. There were 4,704 reported cases in 1962; in 1967 there were 11,240. The Cubans feel that this reflects the general increase that is being seen all over the world.

It is hard to evaluate the changes in health conditions with regard to the traditional parameters, because of the unreliability of the pre-revolutionary figures, or at least their lack of completeness in comparison with the ones being issued now. It would appear that the birth rate returned in 1967 to the 1958 figure of 27.3, after peaking in 1963 at 36.9. Cuba is not a densely-populated country and is not concerned now with population control.

The death rate has been steady since 1958, at 6.2 to 6.6 per thousand; it did increase in 1962-1963, going up to 7.2. The maternal mortality rate has stayed constant since 1958, at a level of 0.9 to 1.1 per thousand live births.

The infant mortality rate appears to have risen steadily: the 1958 figure was 32.3, and in 1959 it was 33.9, per thousand live births. It climbed to 36.7 in 1960, to 38.6 in 1961, and to 39.8 in 1962. It has varied from 38 to 39.5 since then.[15]

It is not clear, however, as to what significance can be ascribed to these infant mortality figures. The Cuban figure for 1958 was 32.3, and it appears to have risen over the past ten years to 39.5. This is in the face of marked decreases in the incidence of infectious disease, and also in the numbers of people dying of acute diarrhea, many of whom are infants. Also during this period the number of births taking place in hospitals in Cuba has climbed from 50% to 90%, which is also likely to account for decreased infant mortality.

Two factors must be considered in way of a possible explanation. The 1958 figures are falsely low in comparison with later figures, because the later figures are based on reporting from all over the island, including the rural areas. This means that they would become increasingly inclusive throughout the ten-year period. Also, it is possible that the rates did actually go up immediately following the mass emigration of doctors in 1960-1961, because of the ensuing disruption to health services.

The distribution of disease is another matter, for recent figures point to rates of infant mortality in Oriente that are much higher than

those of Havana.[16] The following rates are for deaths from diseases of infancy in 1967, and are given in rates of deaths per 100,000 inhabitants. The national rate was 60.3, the rate of Havana province was 39.7, and Havana city was 37.0, while South Oriente had a figure of 76.2 and North Oriente had 85.9. Thus the rate of children dying from diseases of infancy was twice as high in Oriente as in Havana. The result was that in December 1968 the provincial director, five sub-directors, and several regional directors from Havana MINSAP were sent to take over direction of the Oriente public health system.

Cuba still has a problem with the distribution of doctors as well as diseases. In 1958, 65% of the doctors were in the major cities; in 1968 the figure was 47%. Doctors all spend two years in the rural service, but then almost all go back to the cities. The reasons are that the opportunities for advanced training exist there, and also that most doctors come from urban backgrounds and find rural life arduous and uncongenial. It should also be noted that being in the rural service does not necessarily mean working in a rural hospital; of the 829 doctors in the rural service in 1967, only 125 were actually in rural areas. The others worked in regional hospitals.

The government is attempting to meet the problem in several ways, and in fact is willing to offer any incentives except material ones to get doctors to settle in rural areas. It is trying to decentralize training and research programs so that doctors working in rural areas will have access to these. It is also trying to recruit medical students from rural

areas so that these people will more readily return after graduation. And finally, the new, more politically-conscious medical students who have grown up under the Revolution may find sufficient fulfillment in serving their country where they are most needed, to endure the difficulties of rural medical practice.

There are also a number of health problems that have been specifically engendered by the Revolution. Mention has been made of the mass emigration of doctors from Cuba in 1960-1961, depriving the country of many specialists and medical educators. Other new problems are the result of overwork, increased mobility, and disruption of social patterns.

Neurasthenia has become common among vanguard workers, who often work 16-18 hours a day. It is a syndrome characterized by exhaustion, bad memory, headaches, irritibility, depression, and epigastric distress. It is found to be relieved by rest.

The Ministry is also in the process of tightening up on amphetamine sales. As in many Latin American countries, amphetamine preparations can be bought over the counter in Cuba. Many young people use them regularly to help meet their arduous schedules.

Increased mobility has enhanced the transmission of infectious disease. Opening roads to rural areas increases the exposure to urban ailments. The annual migration of masses of city dwellers to the countryside for agricultural work, and their communal living arrangements in the work camps, also facilitate the spread of illness.

Social patterns have been disrupted in a number of ways. Many families are breaking up, as the old people choose to leave the country

and the young ones to stay. The liberation of women has brought with it many early marriages, and many early divorces. Also, many young people are spending most of their formative years in schools and work centers, and their primary source of emotional support comes from peer groups and teachers rather than families. It is too early to detect the effects of these phenomena on the present generation of young people.

2. Analysis of the Existing System in Light of Its Goals

The Cubans are aware of the need to improve the quantity and quality of services at all levels. At this time, however, they are placing most emphasis on the two ends of the pyramid, which they consider to be least developed quantitatively: the health sectors, which need more field nurses and sanitation workers; and the research institutes, large hospitals, and medical schools, which need more specialized forms of equipment and personnel (medical and para-medical). But while most progress has been made in the middle range services, the general hospitals and polyclinics, even these have not yet reached the level of development intended for them.

The Lenin hospital in Holgein is a 900-bed general hospital, and serves as the provincial hospital of North Oriente. It has a well-developed residency program, and provides a wide range of specialty services. The Cubans admit, however, that it has a number of shortcomings, most of which are centered in its emergency service.

The service is heavily used, and during peak hours people wait 2-3 hours if their cases are not emergencies. The area is crowded, noisy,

unhygienic, lacks complete diagnostic and therapeutic facilities, and provides only static, curative services. Furthermore, procedures done there do not always measure up to Cuban medical standards.

The reasons for this are several. The hospital is misused by patients, breaking down the regionalization plan. The hospital serves as the regional hospital for Holgein as well as the provincial hospital, and people from other regions use the Lenin hospital instead of going to their own regional hospitals because they think it is a better facility. Also, people in the area with non-urgent cases come to the ER instead of going to their polyclinics. The region itself is short of polyclinics and only has three for 100,000 people. Finally, doctors from surrounding areas sometimes send difficult patients directly to the Lenin ER instead of through other, more proper channels of referral.

The house staff of the hospital is limited in number, and during busy periods interns work in the ER unsupervised by residents. One intern was observed doing a lumbar puncture without putting a sterile drape over the field, although he had washed it with disinfectant.

The hospital does not yet have a functioning intensive care unit. The area allocated for the ICU is now being used for pediatric surgury, and will be converted when the adjacent pediatric hospital is completed. Also, because of the inherited location of certain facilities in Havana, the hospital cannot entirely fulfill its function as the ultimate treatment center for the people of the province.

In sum, the hospital suffers from lack of patient education, lack of outside physician cooperation, lack of sufficient house staff, lack of sufficient polyclinics in the area, lack of fully-developed complementary facilities (pediatric hospital), and lack of proper national distribution of certain specialized facilities and personnel.

The next level of service is the regional hospital, and it is instructive to compare two of them, the General Teaching Hospital of Havana, and the Hospital of Bayamo, in Oriente.

The General Hospital is a 500-bed hospital that is heavily staffed. It has 126 regular physicians, 45 residents, 62 interns, and 250 medical students. It also has 92 nurses, 150 aides, and 350 nursing students. It serves a region of 400,000 people which contains eight integral polyclinics, and which needs sixteen more.

The hospital at Bayamo has the opposite problem: it is lightly staffed but serves a region with many primary care facilities. The hospital has 250,000 people in its region, including the 80,000 in the city of Bayamo; temporarily 50,000 people of a neighboring region also use it. While the city has one polyclinic and is expecting another, the region as a whole has fourteen polyclinics and rural hospitals, because of the presence of both small cities and mountainous areas. The hospital has 40 doctors, including six internists and one full-time cardiologist. It has a part-time gastroenterologist and no neurologist. The wards of fifty patients are usually attended by one nurse and one nurse's aide.

The rural and urban primary care facilities also present a number of interesting contrasts. The rural hospital at Chivorico in Oriente serves 21,000 people spread over 500 square kilometers of mountains. Its major impact on the area has been in changing the pattern of giving birth at home. Before the hospital was built, almost all of the births took place at home, with a reported 35 cases of neomaatal tetanus each year. In two years, 70% of the births have become institutionalized, and the tetanus rate dropped 75%.

The major shortcoming of the facility was its lack of a bacteriology lab. People are either treated without reference to culture, or sent sixty miles over mountainous roads to the regional hospital in Santiago de Cuba.

Another problem of some of the rural medical facilities was that they were becoming static, treatment-oriented centers. This was largely solved, however, by requiring the hospitals to study their areas in detail for epidemiological data, through creation of the health sectors and employment of field nurses and sanitation workers, through formation of the health committees to oversee progress in the areas, and through participation of the mass organizations in public health tasks. However, there is still a shortage of field nurses and sanitation workers, and local health workers fill in for them in many places.

The Nugyen Van Troi polyclinic in Havana presents many contrasts to the rural hospital at Chivirico. It serves an area of 67,000 people, and has eight full-time doctors; in addition, it has visiting specialists from the regional hospital across the street. Its only apparent limitation was that it had not yet begun to deal with the public health problems of the

advanced urban population which it served, namely problems of smoking, air pollution, overweight, and animal fats in the diet. However, the Prime Minister spoke of these problems in his speech at Valle del Peru, as tasks to which health workers would begin to address themselves.[18]

A pattern emerges from this review of facilities. The urban hospitals and polyclinics are generally well staffed with a shortage of space, or with too few polyclinics for a given population. The government has concentrated on building rural facilities; it has yet to solve the problem of fully staffing them.

Personal attitudes persisting from the pre-revolutionary days also pose problems for the health system. Working for personal gain still motivates some of the doctors who stayed in the country. Some engage in private practice, usually in addition to state service. The government's response has been to permit this, but to attempt to pay good salaries so that doctors in state service will use their spare time for further education and not private practice. Also, no doctor graduating medical school after 1965 can go into private practice, so that the phenomenon will eventually die out. The temporary result is that doctors are the highest-paid professional group in the country, and that a ten-fold salary differential exists between the professors in the medical school and the men who clean the building.

Public attitudes also engender problems for the health system. Many families were reluctant to accept back people leaving tb or mental

hospitals, and a public campaign is being waged to change this attitude. The country, perhaps because of its Latin heritage, looks harshly on unwed mothers; the state permits abortions for unmarried pregnant girls because of this public sentiment. Most people in the country also strongly condemn homosexuals, who have a difficult time in the country.

The issue of physical examination illustrates other problems yet to be fully overcome. Health cards are records that workers carry documenting their regular health examinations, and are supposed to be checked by the administrators in the work areas. However, many work sectors do not record 100% participation, sometimes because of lack of motivation of plant administrators and workers, sometimes because of lack of sufficient medical resources in the areas. The problem is more pronounced among the population groups not regularly working, specifically, the old people and the housewives. These people have the lowest rates of health examinations, and the CDRs have taken up the task of changing this pattern.

It is the new communities that are being built in which one can see the closest approximation of existing conditions to goals of the system. In a recent speech celebrating the inauguration of a new polyclinic, the Prime Minister, Fidel Castro, told the people of Valle del Peru about the preventive medical care that their children were to begin receiving.[19]

The 218 children aged one to four will have three scheduled visits to the pediatrician each year. They will be checked for vaccinations, psychomotor development, and bone problems. Advice will be given to mothers concerning accident prevention, and the children will receive

physical examinations and lab tests for hemoglobin, feces, and Mantoux tests for tuberculosis.

The 569 children in the five to fourteen year group will make two visits a year to the doctor for prevention and educational consultations. They will get physical examinations and lab tests, and will be screened for psychological problems. The physicians will have the aid of field workers who will visit families and talk to parents about child care.

At the other end of the spectrum from preventive pediatrics is the Cuban rehabilitation program. It is conceived of as a full program, encompassing social, physical and mental rehabilitation services. It is in the first stages of development now, and is receiving technical and financial aid from the Pan American Health Organization.

3. Achievements and Problems in Relation to the Society as a Whole

To put an understanding of the health system in clearer perspective, it is important to see how the achievements and problems of health reflect larger social trends in Cuban society.

The Revolution from its inception had as its goal the transformation of Cuban society. The experience of the guerillas in Oriente showed them the appalling conditions in which the campesinos lived, with terrible housing, education, sanitation, health, nutrition, and so on. Thus it is not surprising that health should be one of the principal foci of revolutionary development, just as are housing and education. Further, it is also not surprising that most new health facilities, as in the case of

housing and schools, should be built in the countryside. The Cubans say to visitors in Havana: "You must go out to the country if you really want to see the work of the Revolution."

The planning and coordination that has characterized the health system is also found in other sectors, although with varying degrees of success. MINSAP has served as a model for other ministries because of its formulation of the practice of centralized planning with decentralized executive function. At the other end of the spectrum, planning in the economic sphere has been much less ordered, and progress much more uneven.

With regard to the improvement in health conditions, the declining infectious disease rates are attributable to several things. The most prominent, however, except perhaps for mass vaccinations, are the generally improved living standards, with better housing, food, employment, and education. Again, the Revolution itself is considered the most important public health measure in Cuban history.

Health facilities are planned as one aspect of integrated community development. The communities that are built now contain polyclinics, schools, supermarkets, housing, and are located near major work centers. Programs for the use of every facility are drawn up and coordinated with each other. Health care is free, as is education; housing costs up to 10% of a family's income. All this is part of the government's plan to give away as much as possible, looking to the day when money is no longer a factor in human relationships.

The increased awareness of the people regarding health is just one aspect of generally increased knowledge. They learn about health conditions, achievements, and problems by listening to and studying Fidel's speech at the inauguration of the Valle del Peru polyclinic. But several days before that he gave a major speech on education, which will also be extensively studied. And on January 2, 1969, he gave a detailed speech on the state of the economy. Thus the Cuban people have the opportunity to become informed on all the major areas of their country's development.

The task of increasing the population's awareness and participation is not carried on solely through the Prime Minister's speeches; it is also the daily work of the mass organizations. It was mentioned that each of the 106,000 CDRs has a health worker who coordinates the health tasks of his area; each CDR also has a member responsible for defense, for education, and for various other functions. The CDRs are the focus for many forms of block activity and organization, which range from getting people together to clean the streets or preserve a park, to adjudicating thefts or marital disputes through the local popular tribunal. In general, people are encouraged to participate in decisions and activities which relate to many spheres of their lives. They share responsibility for counter-revolutionary vigilence, that is, guarding the institutions and buildings on their block from sabotage. They prepare together for civil defense, and many belong to the militia. They engage in voluntary labor by putting in extra unpaid hours at their places of work and by spending vacations doing agricultural work. The decision to reopen nightclubs was proposed

by the government, but was approved and modified by the people through their CDRs. Thus, the people's interest in, awareness of, and participation in health activities is only one aspect of their increasing engagement in many spheres of activity.

With regard to formal education, mention was made of opportunities and encouragement for mobility up the health careers ladder. Every work center in Cuba has a built-in educational facility, called a workers' faculty, which usually meets at night and which covers the range from primary school to pre-university. Workers are taught basic learning skills and also technical material relating to their jobs. If it is determined that a worker has the ability and interest to profit from full-time education, he is sent to school, and continues to receive his full salary.

With regard to the social goals of Cuban society, those of developing the integrated man and furthering an internationalist perspective, the health system again reflects the general trends. The present generation of medical students contains a high proportion of dedicated revolutionaries who want to use their skills to serve their people and who are not concerned about wages. Like other young people, they serve in the militia and do voluntary labor including agricultural work. Furthermore, when Cuba has enough doctors, they feel they will be eager to serve in any other country that needs them. Cuba already has doctors serving, at her own expense, in Algeria, Mali and the Congo. It is well known that she has people serving in other capacities in other countries of the world.

Health care in its turn serves the Revolution. A healthy population is more able to proceed with other developmental tasks. Health care is also a way of winning the people's allegiance. When the guerillas were in the Sierra Maestrae, one of the principal means with which they gained peasant support, aside from their general deportment, was offering health care to the people.

The problems of the health care system also reflect larger social problems. The resources of the country are limited, and development proceeds with due regard for this fact. The concentration of building medical facilities in the rural areas has left the urban task unfinished, and many more polyclinics are needed in the cities.

The blockade of Cuba by most countries of the Western hemisphere hurts the health system as it does the economy in general by depriving it of certain types of equipment and products. Most of the modern x-ray equipment was obtained in exchange for releasing the prisoners captured at the Bay of Pigs in 1961; certain forms of medicines, such as intramuscular forms of new diuretics, have to be brought in by visiting guests. Medical journals and books from the U.S., in high demand, reach Cuba by roundabout routes and are in short supply.

The persistance of old attitudes, already illustrated by continued pursuit of private medical practice or the public reluctance to accept back discharged tb or psychiatric patients, is seen in other sectors of the economy. Private landowning is still permitted, although confined to small plots; small businesses were nationalized only two years ago.

The men have still not completely given up their bias against having their women work, and the Cuban Federation of Women represents a compromise; the women are free to participate in the tasks of the Revolution, but work as a separate group rather than alongside men. Wage differentials exist in many fields, and the government's plan is to bring up the lower wage scales rather than cut anyone's salary.

The continued emigration of 200 doctors each year is reflected in the general waiting list of people wanting to leave the island, which numbers more than 100,000. Conditions are difficult in Cuba now, demanding sacrifice and hard work, and many who returned to Cuba from the U.S. in the early 1960s are leaving. The tragedy is that where whole families came to the island, it is usually only the older people who want to leave; those under thirty usually stay, for the country provides many opportunities for young people to engage in important and responsible tasks.

The persisting overconcentration of doctors in the cities is also part of a general social phenomenon. The government is trying in many ways to decentralize the country and to deemphasize the importance of the cities. It has established a plan whereby the area around the capital city, known as the cordon, is being developed for agriculture, and will be maintained by people from the city; Havana will thus become self-sufficient for its food production. With respect to education, there are plans to move all the secondary schools out of Havana and place them in the countryside, where they will be integrated with productive work and

military training. There are also more vague plans to decentralize the university. All these represent attempts to wean people from patterns of urban living.

The incomplete participation of the population in health tasks is also reflected in other sectors. In general, the old people and the housewives have been the two groups hardest to reach. The old people cling to traditional patterns of living, and the housewives represent people who are for the most part unwilling to engage in productive labor at a time when their efforts are crucially needed to help develop the country.

Thus, problems in the health sector are not isolated events, and in fact the health system offers a microcosm of the achievements and problems of development facing the Cuban people.

V. COMPARISONS WITH OTHER COUNTRIES

1. Health Conditions in Latin America[20]

This section is not intended to make detailed comparisons between Cuba and any other Latin American country or to present an exhaustive account of Latin American health conditions; rather its intention is to show that in general terms, the health conditions that prevail in many countries in Latin America now are similar to those found in Cuba before the Revolution.

Deaths from the complications of gastroenteritis are a major health problem in all of Latin America, especially because it often affects infants. In 1964 the following rates prevailed (deaths per 100,000 persons): Costa Rica - 136; Mexico - 111.2 (44,064 deaths); Colombia - 105.4 (18,427 deaths); Dominican Republic - 98.5 (3,342 deaths); Peru - 81.3; Venezuela - 47.8; Cuba - 28.1 (2,107 deaths); U.S. - 4.3 (8,178 deaths). In 1958 Cuba had a rate of 107.7 with 7,000 deaths.

With regard to polio, the following figures are for number of cases in 1965: Brazil - 541; Mexico - 447; Peru - 444; Colombia - 380; Honduras - 265; Ecuador - 217; Chile - 206; Venezuela - 118; U.S. - 72; Cuba - no cases. In the late 1950s, Cuba had 300 to 400 cases a year, with a 25% mortality rate.

For malaria, the following figures are for total number of cases in 1964: Brazil - 110,306; El Salvador - 34,217; Mexico - 10,114; Nicaragua

- 8,307; Paraguay - 6,728; Venezuela - 4,794; Costa Rica - 2,563; U.S. - 147; Cuba - 136. In the 1950s, Cuba was reporting between 7,000 and 10,000 cases of malaria a year.

The following figures are for the rate of typhoid fever in 1965, in cases per 100,000 people: Peru - 87 (5,000 cases); Chile - 65.3; Colombia - 56.3 (10,179 cases); Ecuador - 42.7; Mexico - 11.4 (4,847 cases); Dominican Republic - 12; Venezuela - 9.3 (1,000 cases); Uruguay - 9.1; Cuba 3.1 (232 cases). The year before, however, Cuba had an epidemic of typhoid fever in Las Villas province, and her rate for 1964 was 15.5, with 1,158 cases.

The following infant mortality rates are for deaths during the first year per 1,000 live births, and are from the World Health Annual Statistics of 1965:

Chile -	107.1	Nicaragua -	51.6
Bolivia -	106.5	Venezuela -	47.7
Ecuador -	93.0	Panama	44.9
Guatemala -	92.6	Puerto Rico -	42.8
Peru -	90.5	Honduras -	41.2
Colombia -	82.4	U.S. (Black) -	40.3
Costa Rica -	75.1	Cuba -	37.7
El Salvador -	70.6	Jamaica -	36.7
Argentina -	61.8	U.S. (Total) -	24.7
Mexico -	60.7	Canada -	23.6
Dominican Republic -	53.6	U.S. (White) -	21.5

The infant mortality rate reported for Cuba in 1958 was 32.3, a surprisingly low figure in light of the similarity of pre-revolutionary Cuba to other Latin American countries with regard to infectious disease and deaths from acute diarrhea. It is not clear what to make of this apparent discrepancy.

2. The Czechoslovakian Health System[21]

The Czechoslovakian health system in many ways served as a model for the Cuban system, so that it is logical that there should be many similarities. At the same time, differences in conditions, temperament, and experience have produced many differences. A comparison adds another dimension to our understanding and analysis of the Cuban system.

The Czech and Cuban systems are similar in many ways. Both were started in the face of desperate medical needs, the Czech upon the ruins of the second world war, the Cuban as already described. Both set a priority on the production of personnel and facilities; the Czechs now have one doctor for each 600 people, and eight to ten hospital beds per 1,000 population. The Czechs did this with a conscious decision to postpone the development of quality in favor of quantity; yet two-thirds of their practicing physicians now have specialty training. The Cubans also temporarily shortened the length of medical training from seven to five years; it is now back to six, and many graduates go on into specialty training after the rural service.

Both systems are planned and operated by the government, and are freely accessible to the whole population; the governments provide comprehensive preventive and therapeutic health services, organized through their Ministries of Public Health.

The Czech administrative structure calls for central planning and policy control, regional organization, and local delivery of health services. The national level makes policy and designs programs, sets pri-

orities and controls standards. The provincial or municipal level, usually covering 1-2 million people, controls the organization of medical care, hygiene, and training of health personnel. The district level, encompassing 50,000 to 100,000 people, oversees the actual delivery of care.

Facilities and services in Czechoslovakia are organized on the principle of regionalization. At the top is the provincial hospital, a 500-1,000-bed teaching hospital, with a full array of specialty services. Below that is the district hospital, a 250-500-bed general hospital providing basic medical and surgical services. Both the provincial and district hospitals are associated with complementary facilities for tb, mental illness, and care of the aged.

The next level is the polyclinic, which for the Czechs is an outpatient clinic offering a variety of specialty services. It is not usually a primary care facility, but rather, works on referral from the local care units. Occasionally the pattern is changed by affiliation with a district hospital or inclusion of general physicians giving primary care.

The basic health area in the Czech system is the local health community, comprised of 3,000 to 4,000 people. It is served by a general physician and several nurses, as well as a dentist. One pediatrician is shared by two local health communities, and one obstetrician by up to five or six. The pediatric service is usually carried on in a separate facility; the ob service more often in the same building as the general medical care.

The Czechs are now experimenting with several variations on this structure. In some areas they are establishing group health centers, which would combine the general medical, pediatric, and ob services for several local health communities. They are also integrating some specialty polyclinics with district hospitals, apparently to make the specialists' services available to both inpatient and outpatient populations. The specialists from these hospital-affiliated polyclinics visit the newly established group health centers on a regular consulting basis.

It would appear that on the provincial level the Cuban and Czech systems are quite similar. Below that, the Cubans have regions of 200,000 or larger where the Czechs have smaller-sized districts, but they are otherwise the same. It is on the local level that the systems become dissimilar.

The integral polyclinic is the basic unit of primary care in Cuba, and serves 20,000 to 30,000 people. It is an outpatient facility, and gives general medical, pediatric, and ob-gyn service. The only exception is in the rural areas, which will be omitted from consideration here.

The Cubans have a few of what they call specialty polyclinics, which are similar to the predominant form of Czech polyclinic. But most specialty consultations are provided by doctors from the regional hospitals, either in their regular visits to the integral polyclinics, or when patients are referred to their hospitals. The Czech experiments of merging general medical, ob, and pediatric services, as well as incorporating several local health communities into group health centers, are moving them in a direction already taken by the Cuban system.

Another feature that characterizes the Czech system is the physical separation of various health services on the local level. The provincial and district health administrations have authority for all medical care, hygiene, and personnel training in their areas. But on the local level, adult medical care, child health services, school health services, industrial health services, maternal health services, and environmental sanitation and epidemiology, are most often located and delivered separately.

Industrial health services in large work centers are located within the work center itself. These facilities have responsibility not only for occupational health and related illness, but for the full medical care of the work force.

Adult medical services as we have said are organized in the local health community. Most communities have separate child health stations attended by pediatricians and pediatric nurses. It is only in the rural areas that the general physician provides pediatric care. Maternal health services are usually located in the same facility as the general adult services.

School health services are also organized separately, with full-time nursing service in the schools and regular visits by physicians for physical examinations.

Finally, environmental sanitation and epidemiology are both functionally and physically separate. They are located in 'sanepid stations' which are responsible to the district and provincial health departments, and which have authority for health education, communicable disease control, disease surveys, and work hygiene. Personal preventive services are left to the responsibility of the general medical facility.

The Cuban system is entirely different. The integral polyclinic has responsibility for all health matters in its health area, including adult medical care, pediatric care, maternal health, school and occupational health for facilities in the area, and importantly, for all preventive tasks, including health education, epidemiology, communicable disease control, vaccinations and environmental sanitation and hygiene.

Dr. E. Richard Weinerman, in his discussion of the health systems of Czechoslovakia, Poland and Hungary, lists a number of what he considers to be strengths and weaknesses of the Czech system.[22] Among the strengths he includes:

1) The benefits of medical care are available to the whole population on a free basis;

2) The administrative structure allows for centralized planning and setting of standards and priorities, regional coordination, and local provision of services;

3) Services are organized on the principle of regionalization;

4) The department of health unifies within itself preventive, therapeutic and educational aspects of medical care;

5) The system places an emphasis on maternal and child health, and on occupational health;

6) The local health community joins a given community to a single primary care facility;

7) The people in the health system were motivated to further improve the system, and to modify the original structures.

In contradistinction to these, he enumerates a number of weaknesses of the Czech system:

1) Limitation of material resources, causing obsolescence of facilities, deficiencies in technical standards, and shortages of certain types of equipment and supplies;

2) Lack of specialized personnel and facilities, such as for intensive care, automated laboratories, and rehabilitation;

3) Overcentralization of the administrative functions of financing and policy control, producing indifference and passivity on the local level;

4) Continued use of old-fashioned and inefficient forms of medical practice, including general office practice, fragmented records systems, wasteful referral and consultations arrangements;

5) Over-reliance on medical specialization, especially in the unaffiliated specialty polyclinics, which isolates them from community health stations and from inpatient facilities;

6) Fragmented and overlapping local delivery systems, with physical and functional separation of many elements of primary health care;

7) Depression of the morale and status of the physician, secondary to socialist philosophy and adulation of the common man, and an overly rigid system of professional salaries and promotions.

In general, the Cuban health system shares all the strengths that Weinerman ascribes to the Czech system. The one discrepancy might be that the primary care facility is not a neighborhood health unit in Cuba, but rather serves an area of up to 25,000 people. However, this area is subdivided into health sectors that correspond to the size of the Czech local health community. Home visits in the sector are made by a field nurse and a sanitation worker, and the nurse is at the polyclinic on the days that people from her sector have appointments.

In contrast, however, the Cuban system shares only several of the weaknesses of the Czech system. It is subject to limited material resources, but this has not resulted in obsolete facilities because most of

the buildings are newly built. What will happen twenty years hence is another matter. The material restrictions have prevented the Cubans from building as many facilities as they consider desirable, but the gaps are in urban areas, and are compensated for by 'doubling up' in a given building.

The Cubans also share with the Czechs the lack of highly specialized facilities, such as intensive care units and automated laboratories. They are receiving international help for some programs, such as rehabilitation.

Aside from these, however, the Cubans have managed to avoid most of the Czech problems. They have achieved a balance between centralized planning and decentralized executive function that permits people on every level to have a sense of independence and participation. They have done away, except in the vestigial private medical sector, with individual office practice, in favor of group medical practice with reliance on paramedical personnel. They have not isolated their specialists from the inpatient facilities or primary care units, and they have combined all local health services, both clinical and preventive, within a single unit, the integral polyclinic.

Finally, with regard to physician morale and status, the Cuban situation differs markedly from the Czech. A self-selection process went on in which 20% of the doctors, presumably the most bourgeoise, left the country in the early days of the Revolution, and 200 a year continue to leave. Those who stay are committed to the Revolution, and to working for the people. They are excited by the government investment in health,

which permits them to organize and offer to the people a good health care system. Furthermore, because of the greater flexibility of the Cuban temperament, perhaps reinforced by the need to keep their remaining doctors, the Cubans have managed to glorify their workers without denigrating their doctors, and while preaching equality of men, still pay the doctors more than any other professional group. This is not so much a matter of hypocrisy as of pragmatism. It is hoped that the new generation of doctors now being educated will be less concerned with material incentives, that equality of salary will be achieved by raising up the lower wage levels rather than by lowering the higher ones, and that by providing more and more free services, money in general will become unimportant. But as for the present, the physicians enjoy both high prestige and relative affluence in Cuba.

Other differences are probably ascribable to the fact that the Revolution is still young in Cuba, and memory of the Batista days still fresh in many people's minds. There is a general fervor for the Revolution that is not present now in Czechoslovakia, and people in Cuba have a strong sense of working together to build their country. This is seen also in the participation of the mass organizations in health tasks. Whether this high morale, enthusiasm and sense of common purpose and participation will exist when the Cuban Revolution reaches its twentieth year, as the Czech Revolution has, is another matter. But as of now, both structurally and spiritually, the Cuban system seems different than its Czechoslovakian model.

VI. GENERALLY ACCEPTED STANDARDS OF HEALTH CARE ORGANIZATION

1. Creating a Set of General Standards

There exists no single, unanimously-held set of standards by which to evaluate a health care system. However, reading over the American public health literature of the past twenty years, a number of criteria either recur or emerge. Eight of the most definitive works will be summarized, and an attempt made to cull from them a single set of standards which to use in the ensuing analyses. The individual papers will not be critically evaluated, reserving this for the set of standards compiled from them.

In 1949 the Subcommittee on Medical Care of the American Public Health Association issued a paper entitled, "The Quality of Medical Care in a National Program".[23] The paper discussed the essential components of high quality medical care and methods to approach these standards in a national health program; both the overall analysis and many of the individual points are surprisingly current and still highly useful.

The thrust of the paper is that good quality medical care requires highly trained and motivated personnel, modern facilities, and comprehensive services; and further, that the key to an effective system is good organization of these resources. By way of illustration, group practice, regionalization of facilities, and continuity of service are mentioned.

The paper then goes on to dwell on a number of themes still much at issue in modern health care planning. The objectives of a health care system, to be considered comprehensive, must include promotion of health in a population (accepting the WHO definition), prevention of disease and disability, awareness of the economic insecurity attendant to illness, cure or mitigation of disease, and rehabilitation. Furthermore, health care is placed in the context of the need for social and educational conditions that underlie good health, including consideration of employment, housing, mutrition, social and economic security, recreation, and physical and health education.

With regard to health care itself, quantitative and qualitative adequacy are stressed. Quantitative adequacy is insured by services that are comprehensive and balanced, both with respect to scope and timing. Qualitative adequacy is thought to include consideration of personnel, facilities, services, financial arrangements, and administrative organization. Specific suggestions include: regional coordination of facilities; the treatment of the whole person, taking into account social, economic and psychological factors; an absence of discriminatory practices in health care, with regard to consideration of race for training or treatment, or a double standard of treatment for paying versus non-paying patients; the necessity of removing the financial deterrent to the utilization of services; consumer as well as professional participation in planning and policy making; maintenance of overall program control by the general public; continued self-evaluation and controlled experimentation in the science

and method of medical care; universal coverage with medical need as the only eligibility requirement; continuing statistical audits of cost and service; free choice and change of doctor or facility by patients; services that are continuous and coordinated from the patient's point of view.

Also in 1949, E.R. Weinerman wrote "Appraisal Criteria for Medical Care".[24] The following points are stressed: the objectives and accomplishments of a program be related to the needs of the area, with regard to characteristics of the population and the region, supply and use of medical resources, and indices of morbidity and mortality; the administrative structure must promote democratic policy control, economy and efficiency of operation, and quality of medical services; financial design must assure stability and solvency, adjustment of costs to family incomes, and adequate professional compensation; conditions of eligibility must encourage participation and protect individual dignity; personnel and facilities are judged by quality, quantity, and coordination of services; the benefit structure is analyzed in terms of scope, utilization, and costs of services; quality of medical care depends on organization, continuity, standards of diagnosis and treatment, extent of prevention and rehabilitation, nature of the doctor-patient relationship, and the degree of encouragement to education and research; finally, the freedom of experimentation and change that is permitted.

In 1965 the Program Area Committee on Medical Care Administration of the American Public Health Association issued "Essential Elements of Good Medical Care: A Guide to Medical Care Administration".[25] The

four major criteria used are accessibility, quality, continuity, and efficiency. Accessibility included availability and comprehensive services that are available through a central provider. Quality entails both professional competence and personal acceptability. Continuity stresses person-centered care, coordinated services, and a central source of care, be it a personal physician or a team. Efficiency deals with equitable financing, adequate compensation for the providers of services, and effective organization and administration.

Writing in 1963,[26] Weinerman indicated that the control of the quality of medical care involved four things: high standards for participation of personnel and facilities; careful organization of services; continuous professional supervision of standards; and proper motivation of all personnel.

In 1965 the same author wrote a paper entitled, "Anchor Points Underlying the Planning for Tomorrow's Health Care",[27] in which he summarizes points already made under three broad categories: the fit of the service to the need", "closing the science-service gap", and "balance of interests in policy and program". The third point stresses that planning should reflect cooperation between consumers, providers, arrangers, and payers of service, and reflects the newly appearing popularity of prepaid groups and third-party payment on the health scene, bring ing with it "arrangers" and "payers" who are distinct from traditional providers and consumers.

Also in 1965, the Board of Directors of the American Hospital Association issued a "Statement on Optimum Health Services",[28] in which it emphasizes the following points: team approach to individual care, under leadership of a doctor; a spectrum of services: coordinated community and regional hospital system; continuity between hospital and non-hospital aspects of patient care; continuity between hospital in-patient and out-patient services; a continuing program of evaluation and research in the quality and adequacy with which services meet the needs of the patient and the community.

Writing in 1965,[29] I.S. Falk speaks of the "social goals" for medical care. Services must be comprehensive in scope, high in quality, and available to the whole population. They must be socially and psychologically acceptable to the people being served, and professionally acceptable to the people providing them. They must be offered with the maximum economy possible without compromising quantity or quality. He goes on to stress the need for coordination of services in an organization that "provides for all of the essential services made possible by progress in science and technology".

The final source is the 1967 report of the Task Force on Comprehensive Personal Health Services, made to the National Commission on Community Health Services, and entitled, "Comprehensive Health Care".[30] This report stresses that health services must be personal and comprehensive; it places much stress on the role of the personal physician,

whose tasks are to provide a continuing relationship for patients and to "provide or obtain needed care, including the appropriate use of community resources". The report emphasizes that a continuous personal relationship with a physician is essential to patients receiving comprehensive care based on an understanding of them as individuals.

The report goes on to speak of the necessity for communities to continually analyze their services in light of high risk groups, patterns of sickness and mortality, and other indices of effectiveness. It stresses health promotion, including health education and community counseling services, and also the necessity of comprehensive dental services. It poses the objective of contributing to positive mental health, by delineating patterns of environmental stress that may play an etiological role in mental illness, and creating sources of environmental support that may be helpful in a therapeutic way. Finally, it stresses the responsibility of the individual to utilize existing services, while at the same time emphasizing that communities must take collective responsibility for promoting awareness and use of their health care resources.

From the review of these various sources it is now possible to compile a set of 'generally accepted' standards. It should be understood that this does not mean generally accepted amongst the medical profession of this or any other country, but rather, among that group of individuals who might be called 'medical care planners'.

'Generally Accepted' Standards of Health Care Organization

I. Accessibility

- a. geographical -- are the facilities available near where people live?
- b. financial -- is money a barrier to getting necessary care, or a source of great concern after the service is obtained?
- c. eligibility -- do health needs, or do social and economic status, determine eligibility for care?
- d. attitudinal -- is care seen as a right, or as a gift; do people feel comfortable in seeking care?
- e. simplicity -- is there a central source that people have and know of, from which to gain entry into the medical care system?
- f. emergency -- are there places to go and means to get there in times of acute need?
- g. temporal -- are services of sufficient duration or periodicity, and not offered solely on an acute basis?
- h. universal -- is a single standard of care available (considering a. through g.) to the whole population?
- i. responsibility -- of both individual and community for utilization of services?

II. Appropriateness

- a. do the objectives of the program meet the needs of the population?
- b. are resources being used in the most advantageous ways in light of those needs?
- c. are relevant cultural characteristics considered in program design?

III. Quantitative Adequacy

- a. personnel -- is output planned to meet existing and future needs, with regard to both absolute numbers and different types of personnel?
- b. facilities -- is there a balanced and planned building and renovating program?
  - -- are existing facilities being most effectively utilized to provide a full range of services, and to avoid both duplication and gaps in service?
    - -- include community and regional coordination for a given type of facility and for complementary types of facilities?

-- include also efficient use of facilities (such as minimizing unnecessary hospitalization)?

c. planning -- are the overall needs of the system the criteria by which resources are allocated?

IV. Maximization of Quality

a. scientific and rational basis for practice.
b. continuing education of personnel throughout their careers.
c. quality control measures:
   -- self-regulation (informal and formal) by each facility;
   -- supervision by external sources, both professional and public;
   -- high standards for participation of facilities and personnel.
d. comprehensive services
   -- a balanced emphasis on education, prevention, early detection, diagnosis, therapy, rehabilitation, follow-up, and chronic care.
e. broad perspective
   -- sufficient understanding of how the general social and education conditions underlie health and health care.
f. promotion of health
   -- people educated and treated to maximize their health potential, in physical, emotional and social spheres.
g. person-oriented care:
   -- aim is to promote health as well as to treat disease;
   -- respect for the dignity of individuals;
   -- consideration of the patient in his totality, including emotions, family, community, vocation, and so on;
   -- integration of preventive and clinical practice;
   -- community-focused planning and service;
   -- emphasis on prevention and early detection;
   -- services coordinated from the patient's viewpoint.
h. continuity of care
   -- different forms of care available to a person throughout his life;
   -- services of different types and time integrated with each other.
i. personal physician
   -- as a central source of care;
   -- to provide primary care and organize other types;
   -- to maintain a relationship continuous over time.
j. free choice and change for physicians and patients.
k. accessibility of training
   -- based on educational qualifications and not with regard to sex, finances, race, ethnic group, or geographical background;

-- effort to promote interest and training among all population groups.

l. maintenance of morale and motivation of providers and receivers of services:

professionals -- sense of participation, status, financial compensation;
-- consideration of professional and cultural factors;

consumers -- confidence in the system; treated with sympathy, dignity, and understanding; sense of participation in planning; awareness of personal health measures as well as available services.

m. services organized so as to maximize incorporation and maintenance of a. through m.

V. Adaptability of the System

a. flexibility to change.
b. mechanisms and favorable attitude for continuous experimentation and research in scientific and organizational aspects of medical care.
c. responsiveness to consumer needs.
d. public accountability for results.
e. built-in sampling and self-evaluation processes.
f. desire to constantly expand coverage in scope and number of people served; mechanisms for discovering who is missed and why.
g. overall program control by the general public.
h. consumer as well as professional participation in planning and policy making.

VI. Health as Part of General Social Policy

a. are medical services integrated with other social services necessary for health?
b. are sufficient national resources allocated to meet health needs?

2. The Cuban System in Light of General Standards

Accessibility

One of the primary goals of the Cuban planners has been to make health care available to the whole population. They have built many rural hospitals, and health care is largely free. Eligibility is determined by medical needs, and most people feel comfortable in seeking care. The integral polyclinics provide a central source of access into the system, and the regional hospital (in urban areas) or rural hospital (in rural regions) have 24-hour emergency services. Care is offered on a chronic or periodic basis, as needed, and home visits are made by field nurses to people on a regular basis. The system strives to offer a single standard of care, and most communities and individuals are conscious of their responsibilities for utilizing available services.

Several limitations exist with respect to accessibility. The peasants in the rural areas, as well as several sectors of the urban population, do not make full use of resources; the peasants may find some rural hospitals too far away, and the housewives and old people are not fully convinced of the necessity of regular preventive checkups. Also, urban medical care is probably better, simply because of the greater experience of the physicians in the polyclinics with respect to the recent graduates who staff the rural hospitals. Changes that will remedy these deficiencies are well within the stated goals of the planners.

Appropriateness

The objectives of the Cuban system flow directly from the needs of the population, and material resources are allocated with high regard for those needs. Despite the pressures to develop the economy, to import machinery, and to begin production of consumer goods, much of the national budget has been used for medical care, education, and housing.

The program designs attempt to reflect relevant cultural traits of the Cuban people. This is furthered by medical planners' frequent contact with the rank and file of the population, by inclusion of representatives of mass organizations on local health committees, and by frequent explanation to the people of the accomplishments, tasks, and problems of the health system.

At the same time, the health system, and the Revolution in general, are trying to change many of the social patterns of Cuban society. A vast educational task is carried on with respect to prevention, vaccination, sanitation, use of hospitals, dietary habits, and many other aspects of personal and community living. In this sense the health system is striving for cultural change as well as cultural acceptability.

One other issue is the pace of activity in Cuba, and how this relates to cultural acceptability of health care. Personal observations seem to reveal that the pace of activity among health workers in Cuba is considerably slower than that of their American counterparts, who generally seem to be frantically scurrying about. In general, this is in keeping with the whole pace of life in Cuba, except for that of the young vanguard

workers; thus patients coming to a medical facility do not encounter unfamiliar conditions.

Quantitative Adequacy

Facilities are planned for construction and use in a highly rational manner, with regard to regional planning, balanced variety, and equitable distribution. That they are not yet fully utilized in a correct manner has already been discussed.

The situation with regard to personnel is more complex, because people cannot be allocated like buildings. The Cubans have a balanced educational program that is turning out health personnel in good numbers and with a wide variety of skills, both in medical and para-medical fields. The problems of distribution and the continuing shortage of rural personnel has already been discussed. Another issue, however, is the way Cubans employ their doctors.

It has been stated that there are roughly 7,000 doctors in Cuba, working in a variety of capacities. The 260 polyclinics should have three doctors each, but because some serve more than the intended 15,000 to 25,000 people, some now have more. However, there are now as many doctors working in polyclinics as would be if all the necessary polyclinics were built; they simply are concentrated in fewer buildings. Taking the mean population figure of 20,000, one can reason that there should be 400 polyclinics for 8,000,000 people (rural hospitals generally serve the same number of people as a polyclinic). There are thus probably

about 1,200 doctors working in the polyclinics and rural hospitals of Cuba, giving a ratio of one primary physician to every 6,700 people.

There are 37 regional hospitals in Cuba, generally employing about 75 doctors; this indicates that about 2,800 doctors work in regional hospitals. The seven provincial hospitals have big staffs and residency programs, and may have 200 doctors per hospital, accounting for another 1,400 doctors (this includes the pediatric, maternity, and other hospital facilities that make up each provincial complex).

Adding the above totals of 1,200, 2,800 and 1,400, we have accounted for 5,400 doctors. The other 1,600 are probably distributed amongst the national institutes, national hospitals, medical school faculties, various administrative posts, private practice, and training or service in foreign countries.

The significance of this is that at present the Cubans have only about 17% of their doctors working as primary physicians, in addition to the small number still in private practice. Furthermore, there is no apparent intention to change this ratio, except perhaps to put more doctors in the rural areas. In the cities, however, the ratio of one primary physician to 6,700 or more people seems to be the planned figure. This is in strong distinction to the feeling of most non-Cuban health planners that the bulk of a country's doctors should be serving as primary physicians.

The Cubans are aware that others differ with them in this regard. One of their publications[31] states that "it is considered in some countries that specialized services to the population should be offered in the following proportion", and goes on to cite the figure of "one general physician

per 1,500 inhabitants". It does not go on to comment as to why the Cuban planners do not accept a figure in this range. The Cuban ratio would give the city of New Haven, with 150,000 people, a total of 22 primary physicians.

Furthermore, one should not have the impression that Cuban doctors are overworked. Visits that were made to the polyclinics and rural hospitals indicated active use, but showed no signs of long lines or overburdened doctors.

The explanation may lie in the way the system is organized. Much of the preventive care is handled by the field nurse, and many of the routine tasks of a polyclinic visit are handled by ancillary personnel. As an example, the Nugyen Van Troi polyclinic had eight doctors amongst a total staff of 100 people. Furthermore, the polyclinic provides only daytime coverage, with emergency cases going to the ER of the nearest hospital. The primary physicians are also assisted by specialists who make regular visits to the polyclinic. Finally, cases requiring hospitalization are sent to the regional hospitals, where other doctors assume responsibility, so that a polyclinic doctor does not have to follow hospitalized patients.

It would appear that the polyclinic doctors are relieved of many of the tasks and responsibilities that burden the average primary physician in the U.S. It is not certain, however, that this fully explains how the 20,000 people of a health area each receive an average of four outpatient consultations a year, nor how annual physical examinations are performed on so many people. According to the data, 80,000 outpatient

consultations are done in the health area each year; if 75% of the people in the area received a regular physical at the polyclinic, then 15,000 exams would be done annually, and allowing for 300 work days a year, 50 exams would have to be done each day. Clearly, a large number of the physical exams and outpatient consultations must be done by other than the regular polyclinic staff. Unfortunately, through defects in the experimental design, further investigation of these important questions was not made.

Maximization of Quality

The Cubans feel they have grounded their medical system on a scientific and rational basis. They try, by paying good salaries, to encourage doctors to use their free time for further study. Most institutions have internal and external quality control measures: the internal measures include daily rounds, tissue committees, autopsy conferences, and record reviews; the external controls involve supervision by MINSAP administrators as well as representatives of the Communist Party.

With regard to standards for participation, graduating physicians take regular examinations as in other countries. It is not clear, however, how MINSAP screened the doctors it inherited from the old system; medicine was perhaps the area most disrupted by emigration from the country, and doctors electing to remain in the country were probably not too rigorously evaluated for technical capability. In general, however, the forms of practice, which are mostly clinic or hospital, allow for more super-

vision of practicing physicians than would a system made up of mostly solo office practitioners.

It has already been stated that the Cubans are striving to provide balanced and comprehensive medical services, that they are highly aware of the need for general economic, social, and educational development to attain good health conditions, and that they place great emphasis on the promotion of health as well as the treatment of disease. For the most part their care is person-oriented and continuous over time and with respect to different services. They have also made training accessible to women, black students, and people from all economic backgrounds and geographical areas; they are, in fact, actively promoting interest in medical careers among young people of the rural areas.

It would appear that the Cubans place less emphasis on the role of the personal physician than is seen in some of the sources contributing to the set of general standards with regard to both coordination of care and the necessity of personal relationships. The polyclinics serve as a central source of care, but may be staffed by different physicians at different times; this is certainly true for the rural hospitals. However, good general organization rather than the continuous intervention of a primary physician is seen as the basis for coordinated, continuous, and complete medical attention. Also, the field nurses are the people who become most familiar with the patients and their life situations, and can share this information with different physicians if necessary. The field nurses are present on the days that patients from their sectors are

scheduled for the polyclinic, so that a patient can see an unfamiliar doctor and still be treated with an understanding based on detailed knowledge of him as an individual. It should be noted, however, that MINSAP would like to see greater continuity of personnel than now exists in the rural areas.

The same is true for the principle of 'free choice' of physician, so long a tenet of the American medical establishment. A Cuban citizen can choose to see one physician in a polyclinic if there is more than one giving the type of attention he requires; in general, he must use the polyclinic serving the area in which he lives.

Professional morale is high in Cuba, for doctors enjoy both high prestige and adequate financial compensation. In addition, they have the satisfaction of participating in a health system that is providing good care to the people, and that is effecting a visible change on conditions in the country. They are also involved in planning and organizing health activities on the level in which they work.

Consumers are coming to have increasing confidence in the system, as they become more aware of the benefits of health care, both through formal educational activities and their own experiences with the system. They are treated with dignity and courtesy, viewed as human beings, and participate through their mass organizations in planning and carrying out local health tasks.

Perhaps most importantly, services are organized so as to maximize the realization of the above standards. Group and hospital practice

allow for constant exchange between physicians, as well as informal and formal self-regulation. Regional planning allows for completeness with an avoidance of waste and duplication. The structure and function of the MINSAP administration provides for close supervision of standards and evaluation of the results on every level of service. Statistical data is rigorously collected and studied to analyze accomplishments and deficiencies in health care. The party and the mass organizations take an active interest in health activities on every level, and provide for non-professional participation as well as public supervision of the system.

Adaptability

The system appears to be flexible, as much perhaps because of Cuban temperament as by design. The scientific committee that advises the director of MINSAP is constantly screening both domestic and international scientific activity for developments useful in Cuba, and provides a mechanism for the systematic incorporation of new techniques and discoveries into general medical practice. Clinical research is also encouraged at the provincial hospital level.

The system is highly responsive to consumer needs, because of its constant analysis of data gathered by field workers, as well as the participation of non-professionals on all levels of administration. It is run by men who are highly motivated to expand coverage and improve health conditions in the country. Finally the overall function of the system is closely evaluated on the highest levels of governmental authority, including the Central Committee of the Communist Party.

Overall program control is in the hands of the general public insofar as the public will is manifest in the higher levels of government. In Cuba there is a high degree of rapport, understanding, and trust between the people and the government, because the leading public officials have many times demonstrated their concern and commitment to improving the quality of life in Cuba. There is thus a high degree of trust in delegating certain responsibilities to government bodies for overseeing vital functions like the health system.

With regard to consumer participation in health planning, it is mostly limited to the local level, where the representatives of the mass organizations are active in the health committees. On the higher levels, the health professionals and other public officials take responsibility for policy planning and program control. But this must be considered with regard to the high degree of commitment that the chief administrators have shown for constantly improving the delivery of health services.

Health as Part of General Social Policy

The emphasis on health is also seen in the concentration of construction and activity in the educational and housing spheres. Coordinated with medical services are social work and psychological activities, and the CDRs themselves act as welfare and social service agencies if the needs arise. Finally, health care has always had an extremely high priority in the allocation of national resources and the planning of the national budget.

3. General Standards in Light of the Cuban Experience

The first step in evaluating a health care system is to come to some understanding of what one means by health. Once that is done, one can then begin to look at a given health care system to see if it is accomplishing that goal; or alternatively, to attempt to delineate the type of health care system that one thinks necessary to achieve, or work towards, that state of health.

A study of the Cuban health care system cannot be separated from a confrontation with Cuban society as a whole, largely because the Cubans define health in broad social terms. Thus the impact of an exposure to Cuba is going to be partly determined by what the observer brings with him. If he is well studied in medical care organization, he will be impressed by what the Cubans have accomplished in the way of meeting generally held standards (see previous section); however, what may surprise him most is how the very nature of the society itself is intimately related to the realization of health goals. For what Cuba really offers is an insight into a type of balance, that between certain well-organized and specialized sectors of activity, and the wider social milieu in which they occur. And finally, one may come away wondering if in reality the two elements can ever exist independently of each other.

The men who contribute to the standards of medical care organization in this paper for the most part subscribe to the WHO definition of health as a state of "complete physical, mental, and social well-being". It was already mentioned that the Cubans have elaborated this in more

dynamic terms, speaking of a continual and varying interaction of man and his environment, and health being the state that arises from a successful interaction. But the WHO definition itself is almost certainly not conceived in static terms of some vegetative state; rather, it implies a realization of human potential for growth, creativity, joy and self-expression. Also, because man is a social creature who lives in societies, one must speak of the role of that society with relation to health. It is usually thought of as a dual relationship, with the society freeing man for and supplying him with means of fulfillment, and also of the individual fulfilling himself as a contributing member of the society.

If one can assume that the purpose of a health care system is to contribute to people's health, and if one accepts the meaning of health as elaborated above, then a health care system must be regarded as to how it contributes to human growth and fulfillment. Further, one must begin to raise the question of in what context must a health care system function for it to effectively or meaningfully contribute to those ends, or for those ends to at all be realizable.

The major problem with the general standards section is that it focuses on the organization of medical care, not health care. Medical care offers the possibility of preventing, curing, or mitigating the effects of illness; health care implies aiding an individual in the pursuit of self-realization, be that by diminishing the burdens of illness or by actively promoting human development. The first is more or less possible in a variety of social orders; the second demands that the whole social structure be intimately concerned with human development, or health.

If a health care system is to be truly concerned with health promotion, and not simply the treatment of disease, then it must be supported by the general social effort in a number of ways. It requires a society that encourages healthy ways of living, with regard to personal interaction, to honest communication, to leisure time and recreation, to physical well-being. If these elements are not built into the institutions in which people live and function, then they are extremely difficult to realize as the product of 'health education'. If they are things that are specifically repressed by many of those same institutions, then they are probably impossible to realize.

A good health system can only occur in a society that is willing to allocate the necessary material resources for health; that is, a society where those who control the levers of power have a real commitment to the well-being of the great mass of citizenry. If the commitment in money and organizational effort is not made, then services are only piecemeal and unsatisfactory.

The problem then is that most of a society's institutions affect people's health, especially if they are seen as contributing or detracting from human growth and development. In fact, they have a strong effect on the individual consciousness of what that growth and development is all about, or in other terms, what is the nature of human potentials. If the institutions are repressive to health, and to consciousness of health, and if the people with power and influence do not possess any deep commitment to health, then how are the institutions to be shaped? Who is

going to place the priority on health and health care? Health can only arise from a combination of popular consciousness and societal (governmental) commitment.

This can be manifest in other ways, in the type of educational system, in the housing, the nature of work, the rate of unemployment, the availability of recreational facilities, the nature of the environment where people live and work. To speak of meaningful health or health promotion without detailed attention to these factors is impossible.

Removing the consideration of the health care system from its larger social context leads to an over-emphasis on the role of the doctor. No longer can he be one of a variety of people that an individual encounters in the course of his life, who can provide specific skills and some general counseling when needed. Instead, he becomes the sole confidant, the repository of secrets and fears long unshared, the only individual with whom honest exchange and self-revelation is possible. Many people seek out the doctor as one of the few individuals whom they can count on to be concerned with their welfare, and interested in them as people. These are certainly requisites of a physician, but in a society where people are not alienated from each other, they should exist in many sorts of relationships. Thus a health care system, if it itself is to function effectively, must look critically at the general quality of human interactions in its society. Otherwise, people will demand what physicians alone cannot supply, and consequently feel disappointed and frustrated in their contact with the medical system.

Free choice and change of physicians is another tenet that must be examined in the perspective of human alienation. Granted that some doctors and patients may simply be incompatible, the major reasons for emphasizing free choice are twofold: the patient's desire to find one doctor, even if among many, who fulfills certain personal needs, usually more emotional than strictly medical; and the physician's desire not to have to treat someone to whom he reacts unfavorably and for whom he would have to care for if he were the physician assigned to that patient. It is in reality a built-in safety valve, to vent the pressure that develops because of the over-emphasis of the doctor-patient relationship in a society with a high degree of individual isolation. If medical care existed in a more balanced perspective as one of many relationships offered in trust and concern, there would exist less need for freedom for doctors to reject patients or patients to 'shop around' for doctors.

Finally, the nature of the society itself determines how much effective planning and cooperation can exist. In a pluralistic system with many facilities and individuals pursuing their own goals and plans, it is extremely difficult for effective coordination to take place. Wasted resources and gaps in services are the inevitable result. Effective social planning may necessitate a large measure of governmental control or direction of the principal national resources.

The general standards have already been criticized for excessive concentration on the organization of medical services without sufficient concern for the role of the whole social structure in promoting or detracting from individual health. One possible justification of an isolated consideration of the medical care system is that this system itself may be seen as an agent of general change; that is, the physician, by the goals that he works for, by the message that he spreads, and in the way he relates to his patients, may bring people to a greater realization of their own potentials for health and instill a desire for change.

The trouble with this analysis is that not only does a non-health-oriented society frustrate the health-promoting activities of the medical care system, but it will also greatly impair the quality of medical care itself. Some examples have already been mentioned, such as the difficulties of effective large scale planning, the unwillingness to allocate sufficient resources, and the improper demands that many patients may make on medical practitioners. What is perhaps ultimately the most destructive effect of a non-health-oriented society on the quality of health care is the effect of such a society on the practicing physician.

In broad terms, good medical care requires an abundance of resources, rational organization, and motivated health workers. A variety of societies have been able to accumulate the resources, and several different types have been able to rather effectively organize their health systems. But the problem of maintaining the doctors' morale and motivation has proven more elusive. For what is to prevent the medical practitioner from slipping into complacency and mediocrity in a highly-

structured setting, or into apathy or despair if he loses some of his prerogatives of status and money?

This is the area where the Cuban experience may have the most to teach us. As of now, Cuba is still in many ways an unfulfilled promise, caught up in the youth of her struggle for development and full independence, and still beset by traces of the old system within her midst. But the goals for which she is striving, and the creativity and gentleness with which she is pursuing them, enables one to be realistically hopeful she will achieve what she seeks.

The following discussion can best be presented in terms of the American physician; as with any segment of American life, one learns much about him by visiting another country.

The American physician is beset by a number of contradictions. He is a member of a profession that offers the highest kind of public service; yet he is forced to make a living from that service, and for the most part, to make money from each specific act of service. Like most people in the society, he is subject to a multiplicity of steadily increasing financial pressures, and the medical services, which enable him to bear these pressures, cannot help but be influenced by them.

Secondly, he is asked, and often demands of himself, that he treat his patients with a strong concern for human dignity. Yet he lives in a country which has little real commitment to that dignity, and where many people are becoming less and less important as contributing or functioning members of the society. Thus it is really an abstraction

that he brings to many of his interactions with individual patients, and often other feelings or responses strongly influence the relationship.

Thirdly, he is asked, and again, often demands of himself, that he act unselfishly with regard to his time, and often, his services. Financial compensation cannot repay long years of training or hours spent away from family or leisure that other people have. The average physician works harder, longer, and more unselfishly than most members of the society.

This might be acceptable in a society that had a genuine appreciation of the virtues of unselfishness and dedication. But American society places its highest premium on other qualities, those that motivate and make the successful politicians and businessmen. Thus the physician, or any altruistic person, is beset by an ambivalence, between the values of unselfishness and commitment to others that may have impelled him into his profession, and the values of wealth, status, and power, which so permeate the society, and which demand a different set of character traits and behavior.

Finally, he is asked to give medical care which often proves to be an effort that goes unsupported by constructive efforts from other sectors of the society. Ideally, medical care should relieve illness, and free the patient to once more pursue his life activities, be they education, work, recreation, or whatever. If the milieu that a patient returns to is not supportive of the physician's treatment and oriented toward humanly constructive ends, then the net result will not be reinforcing for the

physician's efforts. Many American doctors tend to become disillusioned and cynical with passing years, because of growing doubts over what real impact they can have on people's lives.

Contrast this state with Cuban society. Every physician's financial needs are taken care of by the state; food, housing, education, medical care are all provided, and sufficient salary to partake of the few consumer goods and travel and vacation opportunities. Thus matters of finance do not enter into medical practice.

Human dignity is not an abstraction in Cuba. The Revolution has dedicated itself to improving the quality of life for the great mass of plain people; and they in turn have responded, in many cases working to their capacities and discovering their creative potential in the process. The history of the past fifteen years is replete with stories of untrained peasants and workers rising to great heights, whether on the field of battle or in the struggle with the economy. Thus each Cuban citizen is a valuable member of the society, both in terms of what he may contribute, and because of the country's efforts on his behalf.

Furthermore, the doctor is not culturally isolated from the sick worker he may be treating. They are both engaged in a common taske, that of building the new society. Each is doing it in his own way, and sometimes in the same way, as when they serve together in the militia or go into the fields to cut cane. Thus the bonds and familiarity are well developed between a doctor and any patient he may be asked to treat. Also, people that he helps medically are then able, and for the most

eager, to return to the work they were doing, which they felt to be both meaningful and valuable.

Finally, the well-motivated individual in Cuba is not beset by the same contradictions as his American counterpart. The qualities of unselfishness, dedication to the revolution, concern and work on behalf of others, are considered the highest qualities that a man can possess. The heroes of the Revolution have lived, fought, worked, and died to improve the lot of other men; the society is dedicated to developing what Che Guevera called the man of the 21st century, a human being who derives his fulfillment and whose creativity is stimulated by working for his society.[32] The highest honor of the country, membership in the Communist Party, is bestowed by workers on those of their fellows who most embody these very traits. Thus Cuban society values, supports, and encourages in many ways what the good human beings in the U.S. must struggle to be in the face of endless countervailing pressure, frustration, and seduction.

VII. THE CUBAN HEALTH SYSTEM AND THE STUDENT HEALTH ORGANIZATION

1. The SHO Analysis

Before entering into specific comparison of the Student Health Organization (SHO) critique and the Cuban health system, we will briefly study the historical development of SHO to more fully understand the organization.[33] SHO is an organization of socially-concerned health science students; the structure consists of autonomous chapters located on 30 to 40 medical school campuses. Its members have been hailed by some as the 'new breed' who will redeem the promise of American medicine, and damned by others as more concerned with politics than with health care.

SHO first began in 1964. A group of medical students at the University of Southern California (USC) organized a speakers forum to further awareness of pressing health issues, and a magazine to encourage a dialogue among all health students and workers about these issues. Out of these efforts grew the Student Medical Conference, which was the first multi-disciplinary health student organization in the U.S.

The Student Medical Conference started a program to work with groups not receiving good medical care. The first effort involved medical, dental, and nursing students working with Project Head Start children, and then submitting an evaluation of the medical part of the Head Start Program to the California State Department of Public Health. In the summer of 1965, student groups worked with medically underprivileged people in Mississippi and the San Joaquin Valley of California.

In the autumn of 1965, 65 students from 25 schools of medicine, dentistry, nursing, and social work, met in Chicago at what became known as the First National Assembly of the Student Health Organization. They shared experiences of previous work, and planned a major community health program in California for the summer of 1966.

Funded by an OEO grant, 90 health science students worked in poverty areas of California during that summer. Their goals included providing health services for communities which were receiving grossly inadequate care, stimulating community activity for social change, and educating students in the realities of health care received by the poor. Almost all the project participants considered the summer an invaluable educational experience, and in addition, some enduring changes were made in the areas where they worked. Commitments from local medical groups and changed procedures at local medical facilities are illustrative of the accomplishments of that project.

The students went back to their campuses to spread the SHO doctrine, and the next summer saw three on-going projects, in California, Chicago, and the South Bronx area of New York City. Students worked as patient advocates in the South Bronx, attempting to expedite the care received by community residents at local facilities. In Chicago they worked with local community organizations, helping to define and solve health problems. In one area this took the form of a street-sweeping campaign; in another, an organizing effort to fight the city's urban renewal plan. A third group succeeded in establishing a local health committee, which then won the

right to have one of its black community members join the local hospital board, up to that time the domain of white businessmen and professionals. A fourth Chicago activity involved working with a local health center designed to treat lead poisoning. The center offered high quality treatment, but the students discovered the residents in the surrounding community had little knowledge of the sources or symptoms of lead ingestion. They printed a pamphlet and began an educational campaign in the community.

Another novel aspect of the Chicago and California projects was the inclusion of ghetto high school students in the programs, as 'interns'. These students did the same work as the health science students, and the two groups usually joined together in teams. The effects were to stimulate awareness of health and interest in health careers in the ghetto students, and to subject the health science students to strong attacks from the interns because of their often condescending attitude toward poor people. The health students then began to critically examine their middle class and professional styles and perspectives, feeling that increased self-awareness would facilitate working with people of different social class backgrounds.

By late 1967, SHO members began to confront sectors of the medical establishment, blaming the AMA for many of the deficiencies and inequities of existing health care. At the AMA Conference on Health Care for the Poor in December 1967, SHO stated its position as encompassing the following four points: health care is a basic human right, not a privilege; there must be a single standard of health care for the people of this country; racial and economic discrimination must be abolished from medi-

cal practice; an interdisciplinary approach to health is necessary to good health care delivery.

The third national convention in Detroit in February 1968 indicated the broadening focus of the SHO critique. The summer projects were analyzed, and the conclusion reached that they were good educational experiences, but had not resulted in much enduring improvement of health care for the people involved. Medical school curriculum reform was given a high priority and entailed an increase in the attention given to community medicine, an earlier introduction of students to patients, and alternative programs for students with differing interests. The war in Vietnam was the subject of much bitter debate, and it was widely agreed that the war was draining vital resources from needed social and medical programs. A black caucus was formed, and confronted the assembly with its indifference to black admissions to medical school and the lack of black representation on SHO committees. Finally it was considered necessary, whatever the difficulties, to involve laymen from poverty areas in the planning and implementation of health programs in those areas.

In the summer of 1968, SHO projects were carried on in many parts of the country. The results were unclear, but a tension had begun to develop between those who wanted to maintain the focus of SHO in the poor communities, and those who wanted to move the struggle for change to the medical centers from which the students came. At the same time, OEO and the medical schools were threatening to cut off funding because the students were involved in political activity, which the government and

school officials held to be distinct from health activity. These tensions formed the background for the fourth national assembly in Philadelphia in November of 1968.

The convention opened with a number of demands by various groups to the assembly as a whole. A nursing caucus accused SHO of hypocrisy in its claim to be interdisciplinary, when it was run by and focused almost exclusively on the problems and struggles of medical students. The assembly was moved to take a strong stand against the Vietnam war, spurred by the announcement that an army nurse, also the wife of an active SHO organizer in San Francisco, had been arrested and threatened with court martial for participating in an anti-war demonstration while in uniform. Medical center imperialism was condemned at UCLA because of that medical center's attempt to take over and change a dynamic community-oriented nursing school. And finally, the Philadelphia Committee on Black Admissions asked for national support in its drive to secure one-third of the 1969 first-year places in the city's six medical schools for black students. The proposition was raised, and subsequently voted down, of the assembly's occupying one of the medical schools to dramatize its support for the black admissions campaign.

While it is difficult for any one person to summarize the 'SHO position' at this time, the following position paper goes a long way toward defining what most of the delegates were thinking and feeling at the fourth national assembly.[34]

Outline for an SHO Position Paper

Point of Departure

At present this nation's health care delivery system is based on priorities determined by institutions which, by their very nature, are unresponsive to the health needs of the people. High quality health care is a basic human right. In order to achieve full realization of that right, we need a fundamental change in the health care system.

What do we have now?

I. A system of medical education which --
   1. Restricts the supply of physicians through racism, financial barriers, and artificial educational requirements.
   2. Facilitates fee-for-service and guild professionalism through a dehumanizing educational system which stresses research rather than service, separation of doctors from other health workers, and service without responsiveness to community needs or channels for complaint or redress from the people being served.

II. A health care delivery system in which hospitals have --
   1. No responsiveness or relatedness to or control by the communities they serve.
   2. Interests in directing land use to their own needs and thus becoming an important local political force.
   3. A system of enslavement of personnel:
      a. Unequitable compensation for house staff;
      b. Exploitation of medical student labor;
      c. Low wages and degrading status of aides, orderlies, and others, with little opportunity for advancement or change in status.
   4. Racist policies in staff and patient admissions, creating and maintaining ghetto doctors who give inadequate care.
   5. A health care delivery system in which regular outpatient care in poor areas has little provision for preventive services or chronic care.

III. Government programs --
   1. Welfare, which is degrading, inadequate in compensation, and too low in its cutoff for eligibility.
   2. Medicare and medicaid, piecemeal payments which do not pay for health, but only reinforce the fee-for-service structure.
   3. National health programs, are piecemeal, reinforce existing institutions and patterns of service, and are subject to and corrupted by local political forces.

IV. Doctors and other medical personnel used for immoral political ends --
   1. Vietnam war - American imperialism and genocide:
      a. Not an isolated incident, but a natural result of the present socio-economic system in the U.S.;

b. Draining funds away from necessary domestic programs;
c. Doctors drafted against their will and professional ideals;
d. Medical decisions being governed by military necessity, such as treating less seriously wounded first to 'conserve the fighting strength'.

2. Chemical and biological warfare research.
3. Participation in programs designed to preserve imperialism and prevent true self-determination of peoples: Peace Corps, AID, pacification programs in Vietnam.

The solutions to these problems are still unclear, but SHO has begun to work in a number of ways:

One of the main efforts is 'local organizing'. This involves working with many different groups on the health scene to stimulate awareness of the sources of oppression and offer encouragement and support to attempts to work for change. This includes working with hospital workers, nursing students, nurses and nursing aides, local community groups, medical students, house staff, and even faculty. Meaningful social change will only come about when a large number of people become activated to work for it.

The second area is formulating a broad critique and some initial steps for institutional change. A fundamental tenet of SHO, which it shares with and derives from other segments of the New Left, is that people have a right to control the institutions which affect their lives. Thus students and workers must begin to have influence in their medical centers, and patients and communities in the hospitals that 'serve them'. This sharing of control is a second prerequisite for institutional change.

The third area that must be changed in the current basis for funding medical care. Doctors and institutions such as hospitals must cease

to be businessmen or business ventures, to depend on daily 'sales' for solvency. Methods of funding must be established that free the workers and facilities to concern themselves with high quality, health-oriented care; these might involve pre-paid programs or direct government support.

Before going on to compare the Cuban system and SHO, it would be of interest to briefly reflect on the similarities and differences of the 'general standards' and the SHO critique.

2. The SHO Critique and the General Standards: The New and Old Left in American Medicine

The SHO analysis and the critique of American medicine implied in the general standards represent two independent yet complementary forces on the modern health scene.

SHO is a creature of the 1960s, very much informed by and related to other segments of the radical youth movement, sometimes known as the New Left. Many SHO people first engaged in political activity during the civil rights struggles of the early 1960s. The whole thrust of the movement stems from the great inequities and suffering seen in American society in the face of an unparalleled period of economic prosperity. Furthermore, bitterness over the war in Vietnam has deepened and broadened the commitment to fundamental change felt by many young people in the U.S. today, and SHO people are no exception.

The thoughts embodied in the general standards section, and the men who produced them, are for the most part the spiritual heirs of the

struggle in this country during the 1930s to create a national health program; this was but one of many efforts at that time on behalf of increased government involvement in the society and for modification of the free enterprise system. Although these New Deal planners occupied a political spectrum ranging from liberal to communist, they can be included together under the rubric of Old Left.

Conditions were quite different at that time, with the country still in the depths of the depression. Yet the critique of the American health system embodied in the preamble of a report recommending a national health program in 1938 has a familiar ring to it.[35]

The report states that "deficiencies in the present health services fall into four broad categories:

1. Preventive health services for the nation as a whole are grossly insufficient.

2. Hospital and other institutional facilities are inadequate in many communities, especially in rural areas, and financial support for hospital care and for professional services in hospitals is both insufficient and precarious, especially for services to people who cannot pay the costs of the care they need.

3. One-third of the population, including persons with or without income, is receiving inadequate or no medical service.*

4. An even larger fraction of the population suffers from economic burdens created by illness."

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* It is especially interesting to look at point 3 and then read the recent article on U.S. medicine in Time magazine,[36] which states that 25% of the American people are getting good medical care; for another 50% the care is passable, but not as good as it could be; for the final 25%, "care is either inexcusably bad, given in humiliating circumstances, or nonexistent".

and elitist medical habits in dealing with paramedical workers, of male chauvinism in dealing with women, of inherent racism in dealing with black people, and of rampant individualism when trying to work collectively.

The second SHO approach is local organizing, involving efforts to increase awareness and activity in many groups of people. This stems partly from distrust of establishment agencies, and partly from a conviction that meaningful change can only come from the bottom, that is, from masses of people demanding participation in decisions that affect their lives. It represents a different approach from the medical care experts' attempts to work with established channels to implement new programs.

The third element of the SHO critique that makes it different is the emergence of an analysis that sees meaningful change as impossible within the existing political and economic system. The concentration of power and wealth is held to be such that only radical redistribution would permit the establishment of a system that guaranteed economic security and true political freedom for the great mass of American people. Thus many people in SHO have come to challenge the very nature of American society.

SHO is young, impassioned, and characterized by a style and analysis that is sometimes more emotional than reasoned. Its analysis is quickly maturing, however, both in breadth and depth, without losing its commitment or enthusiasm for fighting against social injustice and human suffering.

The medical care experts -- the Old Left -- are embattled veterans, committed men, who have passed the peak of their struggle. They continue

The second world war paradoxically brought about massive government involvement in some sectors of U.S. society, and at the same time seems to have destroyed the possibilities of other forms of involvement. The U.S. has never come as close again as it did in 1938 to having a national health program.

The analysis that went into the 1938 proposals, and that have characterized the writings of the medical care experts since then, have been scholarly, reasoned, and based on extensive research and investigation. By contrast, the critique of SHO, like much of the New Left, is grounded on a more emotional reaction to the injustices and shortcomings of the health system. With the advancement of years, however, the SHO critique is becoming broader and more thoughtful; it is in fact borrowing from the medical care experts for some of its analysis.

The ways of working for change are also different, influenced both by age and political experience. The medical care experts struggled for years for a national health program, which might be thought of as a form of socialized medicine. Since the late 1940s they have confined themselves to working for a more limited governmental activity, to academic careers, and to developing model programs of prepaid and group practices.

The SHO people have taken different approaches to working for change. Fundamental to all New Left ideology, and some of its activity, is the effort to change oneself, to become the kind of person, who, when looked at by others, is seen as the alternative. This involves confronting the issues of middle class activists dealing with poor people, with professional

to work for change within established channels, and at the same time to inspire and inform the younger generation of medical activists that is now emerging.

3. SHO and Cuba

Cuba both embodies and informs much of the SHO analysis. Thus an exposure to Cuba will inspire an SHO person by the realization of many SHO ideals in the health system and in the society, and also point out the cultural relativity of many of the SHO tenets. The "Outline for an SHO Position Paper" will be used as a framework for the comparison.

Education

The Cuban system illustrates how a government can contribute to removing the inequities of opportunity for medical training. The Cubans have expanded the number of places, actively recruited women and black students, financially supported all their students, and are now encouraging students from rural areas to apply. Furthermore, academic requirements are not overly rigid; a large number of people are given the opportunity for training, and those who have the capacity and motivation will complete the course. Individuals are thus given a chance to demonstrate their ability in the medical arena, rather than being judged on more remote areas of achievement; this is not however a competitive process, because the training program will accomodate as many as demonstrate the required abilities and interest.

The educational process itself in Cuba goes a long way towards overcoming the defects that give substance to the SHO critique of American medical education. The program simultaneously stresses both technical expertise and political consciousness. Cuban students study conscientiously, read available scientific journals, and take an active interest in problems of medical research. At the same time they go to the fields to cut cane, serve in the militia, participate in the 'development of their classes', and engage in political discussions and activities in their youth groups. The educational program itself places first-year students in a community setting from which they begin to appreciate the necessity of comprehensive health programs.

Thus the student simultaneously forms positive attitudes regarding technical and scientific proficiency in medicine, community and comprehensive medical care, and an attitude toward his own identity and role that stresses serving his country, feeling part of his people, and having responsibility for the nature of his educational experience. While some of the older medical personnel still demonstrate in their behavior the conception that doctors form some sort of elite, the students are actively trying to overcome this with regard to their own development. Both they and the faculty are aware of what they feel may be inherent limitations in the consciousness of men who have spent most of their lives in a non-revolutionary society; they do what they can not to let it interfere with their functions as teachers, and both expect that the newer generation of doctors will attain a different and more egalitarian sense of vocational identity. The

students give this goal a high priority in their collective discussion groups, and many of their activities outside the school are designed to decrease the emotional distance between them and the people they serve.

Much of the SHO activity has centered on these themes that are embodied in the fabric of the Cuban program. Educational experiences outside of the medical centers, exposure to the problems of poor people living in their own communities, frank examination of roles and identity with community people, ghetto students, other health science students, and among the medical students themselves, have all contributed to a growing consciousness of and desire to move away from the sense of elitism that brings doctors to view their services as a bestowal of privilege rather than as an obligation to other human beings.

Health Care System

The issue of community control, a fundamental SHO principle, is put in a new perspective by an understanding of Cuba. SHO people hold this as basic to good health care because they see medical institutions as arenas where different interest groups struggle for power and control of resources. A medical center is the setting for research, teaching, patient care, and questions of fiscal solvency. If community-oriented comprehensive medical services are to get a fair allocation of material and organization resources, patient and community groups must have some control of the levers of power, which entails significant representation on the governing boards and committees of the institutions.

Community control, as SHO conceives of it, does not exist in Cuba. While the local health committees and mass organizations participate in the work of the polyclinics and rural hospitals, the administrative plans and policies for larger areas and institutions are made and carried out by MINSAP. For the most part, the functioning of the health system is left in the hands of the professionals. Public accountability is ensured by frequent checks by Communist Party officials on the national, provincial, regional and local levels.

What exists then, is a delegation of the public control to the Communist Party, with some participatory function by the mass organizations like the CDRs or the trade unions, and at the base of the system an informed and active populace. This is representative of most areas of Cuban life, for Cuba does not have formal institutions of democracy, such as legislatures and checks and balances of power. Rather, Cuban democracy grows out of active informed participation of the population in many areas of life, leadership by the Party in most aspects of the society, and a high degree of communication and rapport between leaders in government and the people at large. What is most instructive about Cuba is the trust that seems to exist between the people and their leaders, based on a long history of dedicated leadership, fulfillment of promises, and the commitment of the Revolution to improving conditions of the country, to admitting and rectifying its own mistakes, and to increasingly full and active citizen participation. It is this trust of the people for the leaders that permits them to feel comfortable in letting important decisions be

made by the government. It is a feeling that is continually renewed by the work of the Revolution, and which will last as long as the Revolution continues to fulfill its promise. One must remember that the people are active in local affairs, informed on national affairs, and armed and trained in use of military weapons. It would thus be very difficult for any government not having widespread support to stay in power.

What Cuba seems to represent, in distinction to the U.S., is a society for the most part devoid of conflicts of interest. In a medical center the researchers, administrators, teachers, practitioners, students, and patients do not have conflicting priorities which lead to struggles for power and control of resources. The priorities of the people's welfare and the country's development are dominant in all activities. Meeting the basic needs of the people was the first major task of the Revolution; developing the economic basis is next, and the people understand and largely accept the temporary shortages of consumer goods and other discomforts necessitated by the demands of economic development. The struggle for community control and patient representation that is being carried on in the U.S. is the result of a peculiar social structure, wherein people's needs and welfare are only assured by their continually fighting for them.

Employment

With regard to employment conditions for health personnel, mention was already made of the educational facilities and job mobility that is built into every work center in Cuba. Also, ancillary health workers can assume highly responsible positions in the Party without first moving up

the ladder of medical careers. It should be noted in passing that a Party member working in any capacity, no matter how responsible, continues to receive the wage that he made while working in his former job.

Government Programs

No further discussion is required to contrast the all-inclusive national health system of Cuba with the fragmented nature of government involvement in American medical care. Also, welfare is a dying institution in Cuba as most of the people have enough money to pay for the few remaining services that still cost anything.

Doctors and Political Activity

This is a highly controversial subject, because the young doctors in Cuba see themselves as politicized people and as revolutionaries. Nevertheless, participation in the army is optional for doctors, and the military gets its physicians on a career enlistment basis. No information is available concerning activity in chemical or biological warfare research, and little of the specific nature of Cuban medical activity in other countries.

The SHO ideals, with certain societal differences, are in large measure fulfilled, in Cuba. What comes through as most striking in this regard is the different nature of the tasks that confront the Cuban and American medical student who may share similar ideals and goals.

The Cuban student can devote himself to pursuit of his chosen specialty, assured that similar progressive work and orientations are being

fostered in other sectors of the society, and that the medical structures that he will be asked to work in will be organized and devoted to achieve the goals to which he subscribes. He can thus comfortably work within his social system, confident that even the changes that his experience and education may lead him to demand will be largely accepted by the people in administrative control.

The American medical student who subscribes to the SHO analysis can in no way function as comfortably, nor channel his energies into socially-accepted definitions of medical activity. He is confronted by a health care system that in many ways undermines the kind of medical care he wishes to provide, a society whose other health-related activities function even more destructively, and a power structure that, through its military draft, licensing mechanisms, and control of money, will work in many ways to frustrate and negate him as an agent of meaningful change. Thus while he can be filled with admiration for his Cuban counterpart, he cannot in the final analysis model his behavior after them. Rather, he must gird himself for a long, hard, and potentially unsuccessful struggle to change the American health care system and society; and, sustained by the challenge of the fight, try not to wish, in more despairing moments, that he was living in Cuba.

VIII. CONCLUSION

The road this paper has traveled has been long and tortuous, from Batista's Cuba through the Revolution to the new society, and to the new health system. This system has been examined from many vantage points: from the old system and from the goals of the new; from Latin America and Eastern Europe; by the criteria of the medical care experts and the Student Health Organization. And from all this, what can one now say?

One can say that Cuba has a good health care system, which has greatly reduced the morbidity and mortality from infectious diseases, which is well-organized to deliver high quality comprehensive care to the whole country, which has freed the Cuban people from much of the suffering that burdens the other peoples of Latin America, which has acquired a flexib ility and maintained a spirit that distinguishes it from other state-directed systems, and which largely fulfills the standards of American medical care planners and young social activists.

One can say that to evaluate a health system one has to look at many things, such as the gains it has made, the goals it has set, the organization within which it works, the resources at its disposal, and the motivation and morale of the people who work in it.

One can say that it is necessary to understand the cultural determinants of personally-held beliefs, and that competition, individualism, distrust, conflict of interests, alienation of people from each other, and material incentives cannot be held as intrinsic to human nature simply because they are observed to be prevalent in certain societies.

One can say that good health care demands an interaction of a people with a health care system, wherein the system seeks to serve the people, to meet their needs, to broaden their perspectives, to consider their sensitivities, to improve the overall quality of their lives; while the people take responsibility to utilize the services, strive to live in a healthy manner, and participate in the operation and maintain public control of the health system.

One can say that a health care system is crucially shaped by its larger society, in which it functions, through which come its material resources and workers, to which it sends back its patients, by which the other conditions and services that support health care are provided, and from which comes the very conception of the health toward which it works.

And finally, if one accepts all of these -- if one accepts that a small, underdeveloped Carribean island has been able to create a modern and effective health care system in ten years, and that health and health care do not exist independently from a society -- then one more point demands to be made. Look at the health of a people and you see the society in which they live! Look at the number of infants who die unnecessarily, the number of people who are sick without adequate care, the illness that can be prevented, the people whose lives are unfulfilled, whose creativity remains untapped, whose visions are shrunken or narrowed; in these things are reflected the politics, the economics, the culture of the country. In these things one sees mirrored the humanity of that world.

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